









# Eggs in Oviduct

	# eggs	N
<i>Callisaurus draconoides</i>	3-5	6
<i>Coleonyx variegatus</i>	2	30
<i>Dipsosaurus dorsalis</i>	3-5	8
<i>Phrynosoma m'calli</i>	4-7	12
<i>Phrynosoma platyrhinos</i>	5-7	5
<i>Sceloporus graciosus</i>	2-6	19
<i>Sceloporus magister</i>	8-10	8
<i>Sceloporus occidentalis</i>	8-14	34
<i>Sceloporus orcutti</i>	8-15	4
<i>Uma inornata</i>	2-4	14
<i>U. notata</i>	1-4	22
<i>U. scoparia</i>	2-5	22
<i>Urosaurus graciosus</i>	2-4	18
<i>Uta stansburiana</i>	2-6	39



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CALLISAURUS  
DRACONOIDES



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CALLISAURUS  
DRACONOIDES



# CALLISAURUS DRACONOIDES

## TOTAL COLLECTED

<u>MONTH</u>	<u>IMM.</u>			<u>AD.</u>			
	♂	♀	TOTAL	♂	♀	TOTAL	
JAN	-	-	-	-	-	-	
FEB	-	-	-	-	-	-	
MAR	4	-	4	5	1	6	
APR	9	4	13	12	11	23	
MAY	3	8	11	40	24	64	
JUN	2	4	6	4	4	8	
JUL	5	6	11	10	15	25	
AUG	3	3	6	25	20	45	
SEP	3	6	9	9	3	12	
OCT	3	1	4	3	-	3	
NOV	-	-	-	-	-	-	
DEC	-	-	-	-	-	-	
	32	32	64	108	78	186	TOTALS







MALEENLARGED TESTIS ( $> 40 \text{ mm}^3$ )

1959 4/25 - 8/19

1960 3/21 - 8/10

1961 5/14 - 8/21

1962 5/5 - 7/19

3/21 - 8/22 (63) OK

## CONVOLUTED EPIDIDYMIS

1959 4/25 - 8/31

1960 4/12 - 9/9

1961 4/14 - 8/21

1962 5/5 - 8/4

4/11 (64) - 9/9 OK

## MOTILE SPERM

1959 8/19 - 8/31

1960 4/12 - 9/9

1961 4/14 - 8/21

1962 5/5 - 8/4

4/11 (64) - 9/9 OK

FEMALE

## OVA ACCUMULATED YOLK

1959 8/19

1960 4/13 - 8/10

1961 8/12 - 8/13

1962 4/14 - 7/19

4/11 (64) - 8/19 OK







C. D. (CONT.)

ENLARGED EGGS (> 3 mm)

1959 8/19  
1960 4/13 - 8/10  
1961 8/12 - 8/13  
1962 4/14 - 5/5  
7/11 (64) - 8/19 OK

CONVOLUTED OVIDUCTS

1959 3/22 - 9/11  
1960 4/13 - 8/10  
1961 5/7 - 9/16  
1962 4/14 - 8/19  
3/22 - 9/24 (63) OK

EGGS IN OVIDUCTS

1959 8/20  
1960 5/11 - 7/17  
1961 7/10  
1962 -  
5/11 - 8/20 IF

CORPORA LUTEA

1959 8/20 - 9/7  
1960 5/11 - 8/10  
1961 7/10 - 7/21  
1962 7/17  
5/11 - 7/1 18







Potentially Breeding Callisaurus draconoides → (70+mm, S-V)

(smallest ♂ = 58mm)  
(largest ♂ = 102 " )

Totals, 1958-1961

Date	# ♂	No ♀	Total	% ♂
Sept. '58	0	5	5	0
Mar. '59	0	1	1	0
Apr.	0	1	1	0
May	0	1	1	0
June			0	
July			0	
Aug.	4	0	4	100
Sept.	0	2	2	0
Oct.	0	2	2	0
Mar. '60	0	3	3	0
Apr.	6	0	6	100
May	13	0	13	100
June	3	0	3	100
July	3	1	4	75
Aug.	7	0	7	100
Sept.	1	0	1	100
Mar. '61	0	1	1	0
Apr.	1	2	3	33
May	1	3	4	25
June	0	1	1	0
July			0	
Aug.	1	0	1	100
Sept.			0	
Oct.	0	1	1	0
May '62	11	6	17	65
Jul.	5	1	6	83
Aug.	2	5	7	30
Apr. '63	0	1	1	0
May	2	4	6	33
Aug.	0	1	1	0

Month	# ♂	No ♀	Total	% ♂
Mar.	0	5	5	0
Apr.	7	3	10	70
May	14	4	18	78
June	3	0	4	75
July	3	0	4	75
Aug.	12	0	12	100
Sept.	1	7	8	12
Oct.	0	3	3	0
Total			64	



Table 1  
Summary of Data

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1980	10	15	20	25	30	35	40	45	50	55	60	65	500
1981	12	18	22	28	32	38	42	48	52	58	62	68	520
1982	14	20	24	30	34	40	44	50	54	60	64	70	540
1983	16	22	26	32	36	42	46	52	56	62	66	72	560
1984	18	24	28	34	38	44	48	54	58	64	68	74	580
1985	20	26	30	36	40	46	50	56	60	66	70	76	600
1986	22	28	32	38	42	48	52	58	62	68	72	78	620
1987	24	30	34	40	44	50	54	60	64	70	74	80	640
1988	26	32	36	42	46	52	56	62	66	72	76	82	660
1989	28	34	38	44	48	54	58	64	68	74	78	84	680
1990	30	36	40	46	50	56	60	66	70	76	80	86	700
1991	32	38	42	48	52	58	62	68	72	78	82	88	720
1992	34	40	44	50	54	60	64	70	74	80	84	90	740
1993	36	42	46	52	56	62	66	72	76	82	86	92	760
1994	38	44	48	54	58	64	68	74	78	84	88	94	780
1995	40	46	50	56	60	66	70	76	80	86	90	96	800
1996	42	48	52	58	62	68	72	78	82	88	92	98	820
1997	44	50	54	60	64	70	74	80	84	90	94	100	840
1998	46	52	56	62	66	72	76	82	86	92	96	102	860
1999	48	54	58	64	68	74	78	84	88	94	98	104	880
2000	50	56	60	66	70	76	80	86	90	96	100	106	900
2001	52	58	62	68	72	78	82	88	92	98	102	108	920
2002	54	60	64	70	74	80	84	90	94	100	104	110	940
2003	56	62	66	72	76	82	86	92	96	102	106	112	960
2004	58	64	68	74	78	84	88	94	98	104	108	114	980
2005	60	66	70	76	80	86	90	96	100	106	110	116	1000
2006	62	68	72	78	82	88	92	98	102	108	112	118	1020
2007	64	70	74	80	84	90	94	100	104	110	114	120	1040
2008	66	72	76	82	86	92	96	102	106	112	116	122	1060
2009	68	74	78	84	88	94	98	104	108	114	118	124	1080
2010	70	76	80	86	90	96	100	106	110	116	120	126	1100
2011	72	78	82	88	92	98	102	108	112	118	122	128	1120
2012	74	80	84	90	94	100	104	110	114	120	124	130	1140
2013	76	82	86	92	96	102	106	112	116	122	126	132	1160
2014	78	84	88	94	98	104	108	114	118	124	128	134	1180
2015	80	86	90	96	100	106	110	116	120	126	130	136	1200
2016	82	88	92	98	102	108	112	118	122	128	132	138	1220
2017	84	90	94	100	104	110	114	120	124	130	134	140	1240
2018	86	92	96	102	106	112	116	122	126	132	136	142	1260
2019	88	94	98	104	108	114	118	124	128	134	138	144	1280
2020	90	96	100	106	110	116	120	126	130	136	140	146	1300
2021	92	98	102	108	112	118	122	128	132	138	142	148	1320
2022	94	100	104	110	114	120	124	130	134	140	144	150	1340
2023	96	102	106	112	116	122	126	132	136	142	146	152	1360
2024	98	104	108	114	118	124	128	134	138	144	148	154	1380
2025	100	106	110	116	120	126	130	136	140	146	150	156	1400



Potentially Breeding Calisaurus draconoides ♂♂ (70<sup>+</sup>mm, S-V)

<u>Date</u>	<u>#♂</u>	<u>No♀</u>	<u>Total</u>	<u>%♂</u>
Sep. '63	1	0	1	100
Apr. '64	2	0	2	100

Totals, 1958-1963

<u>Month</u>	<u>#♂</u>	<u>No♀</u>	<u>Total</u>	<u>%♂</u>
Mar	0	5	5	0
Apr	7	4	11	64
May	27	14	41	66
Jun	3	0	4	75
Jul	8	1	9	89
Aug	<sup>15</sup> <del>14</del>	6	<sup>21</sup> <del>20</del>	<sup>71</sup> <del>70</del>
Sep	2	7	9	22
Oct	0	3	3	0
Total			102	







*Callisaurus draconoides* - (70+mm, S-V) -

Left Testis Volume - Average by Months - 1958-1963.

Month	$\Sigma x$	N	$\bar{x}$
Mar.	134	5	26.8
Apr.	805	10	80.5
May	3601	41	87.8
Jun	176	4	44.0
Jul.	646	10	64.6
Aug	<del>897</del> <del>763</del>	<del>19</del> <del>18</del>	<del>47.2</del> <del>42.4</del>
Sep.	178	9	19.8
Oct.	23	3	7.7

Additional data for June  
(difference in published figures)







Callisaurus draconoides Testis Volume (70<sup>mm</sup> S-V)

1958  
Left Testis

SEPT

31

16

32

20

33

TOTAL VOL 132

MEAN 26.4

RANGE 16-33

NO. LIZARDS 5

Right Testis

SEPT

28

16

14

16

32

TOTAL VOL 106

MEAN 21.2

RANGE 14-32

NO. LIZARDS 5







# Callisaurus draconoides Testis Volumes (70+mm S-V)

1959

## Left Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
6	42	30	—	—	73	3	7
					104	8	8
					13		

TOTAL VOL	6	42	30	0	0	190	11	15
MEAN	6	42	30	0	0	63.3	5.5	7.5
RANGE	—	—	—	0	0	13-104	3-8	7-8
NO. LIZARDS	1	1	1	0	0	3	2	2

## Right Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
8	38	29	—	—	59	3	6
					77	8	9
					13		

TOTAL VOL	8	38	29	0	0	149	11	15
MEAN	8	38	29	0	0	49.7	5.5	7.5
RANGE	—	—	—	0	0	13-77	3-8	6-9
NO. LIZARDS	1	1	1	0	0	3	2	2



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Callisaurus draconoides Testis Volumes (70+mm SV)

1960  
Left Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT
24	158	72	91	65	94	27
24	238	55	25	45	63	
42	88	15	57	75	34	
	91	119		82	47	
	72	101			77	
		137			21	
		134			27	
		168				
		101				
		171				
		130				
		113				
		135				

TOTAL VOL	90	647	1451	173	267	363	27
MEAN	30.0	129.4	111.6	57.7	66.8	51.9	27
RANGE	24-42	72-238	15-171	25-91	45-82	21-94	—
NO. LIZARDS	3	5	13	3	4	7	1

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Callisaurus draconoides Testis Volumes (70<sup>+</sup>mm S-V)

1960  
Right Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT
34	165	81	57	54	94	24
20	181	84	21	33	65	
30	77	63	35	63	48	
	91	130		75	69	
	71	96		<del>99</del>	84	
		121		<del>100</del>	28	
		128		<del>118</del>	34	
		145				
		115				
		161				
		104				
		102				
		157				

TOTAL VOL	84	585	1487	113	225	422	24
MEAN	28.0	117.0	114.4	37.7	56.3	60.3	24
RANGE	20-34	71-181	63-157	21-57	33-75	28-94	—
NO. LIZARDS	3	5	13	3	4	7	1

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Callisaurus draconoides Testis Volume (70+ mm S-V)

1961  
Left Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
38	5	15	3	—	104	—	8
	25	38					
	25	97					
		5					

TOTAL VOL	38	55	155	3	0	104	0	8
MEAN	38	18.3	38.8	3	0	104	0	8
RANGE	—	5-25	5-97	—	0	—	0	—
NO. LIZARDS	1	3	4	1	0	1	0	1

Right Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
39	7	18	6	—	128	—	9
	35	42					
	30	97					
		4					

TOTAL VOL	39	72	161	6	0	128	0	9
MEAN	39	24.0	40.3	6	0	128	0	9
RANGE	—	7-35	4-97	—	0	—	0	—
NO. LIZARDS	1	3	4	1	0	1	0	1

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Callisaurus draconoides Testis Volumes (70+mm S-V)

1962  
Left Testis

MAY	JUN	JUL	AUG
173	—	27	15
187		38	8
131		94	5
286		38	4
208		107	3
105		75	4
191			
8			
150			
176			
15			
47			
11			
15			
33			
69			

TOTAL VOL	1805	0	379	39
MEAN	112.8	0	63.2	6.5
RANGE	8-286	0	27-107	3-15
NO. LIZARDS	16	0	6	6





Callisaurus draconoides Testis Volumes (70mm SV)

1962  
Right Testis

MAY	JUN	JUL	AUG
198	-	28	13
176		41	8
139		97	5
251		57	4
217		89	6
102		82	4
143			
13			
154			
220			
15			
55			
13			
16			
33			
91			

TOTAL VOL	1836	0	394	40
MEAN	114.8	0	65.7	6.7
RANGE	13-251	0	28-97	4-13
NO. LIZARDS	16	0	6	6





# Callisaurus draconoides testis volumes (70<sup>+</sup>mm, S-V)

1963

## Left Testis

Apr	May	Aug	Sep
61	14	67	8
	29		
	11		
	24		
	16		
	43		
	24		

$\Sigma X$	61	161	67	8
$N$	1	7	1	1
$\bar{X}$	61	23.0	67	8
range	-	11-43	-	-

## Right Testis

Apr	May	Aug	Sep
75	15	53	8
	59		
	21		
	20		
	24		
	47		
	29		

$\Sigma X$	75	215	53	8
$N$	1	7	1	1
$\bar{X}$	75	30.7	53	8
range	-	15-59	-	-





Testis Volumes, *Callisaurus draconoides* Adults (70+mm S-V)

Left testis larger

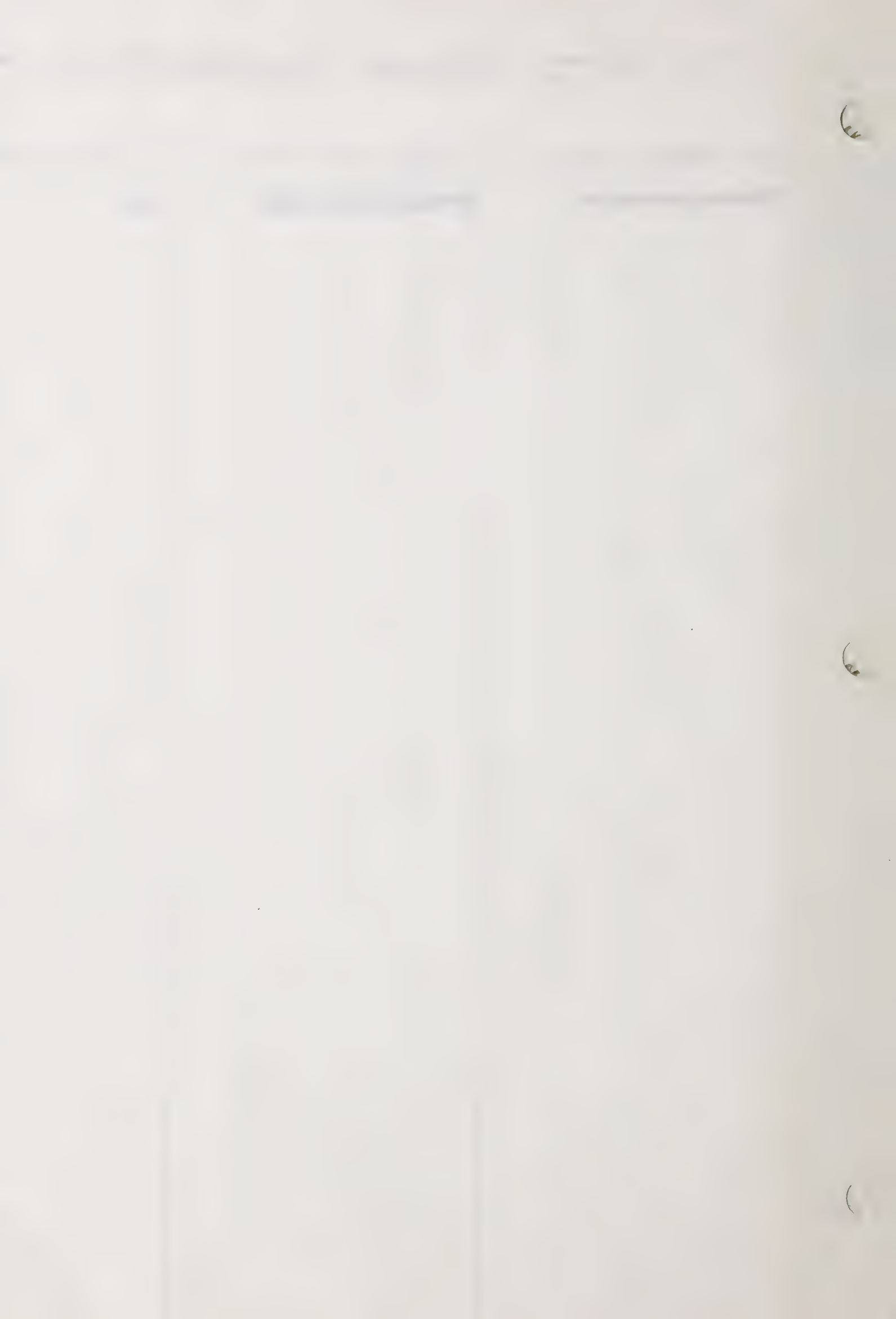
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Right testis larger

|||||

Testes same size

||





Testis Volumes, *Callisaurus draconoides* Immature (<70mm S-V)

Left testis larger

|||||

Right testis larger

|||||

Testes same size

||||





Callisaurus draconoides Adults (70+ mm S-V)

(15)

Left testis anterior

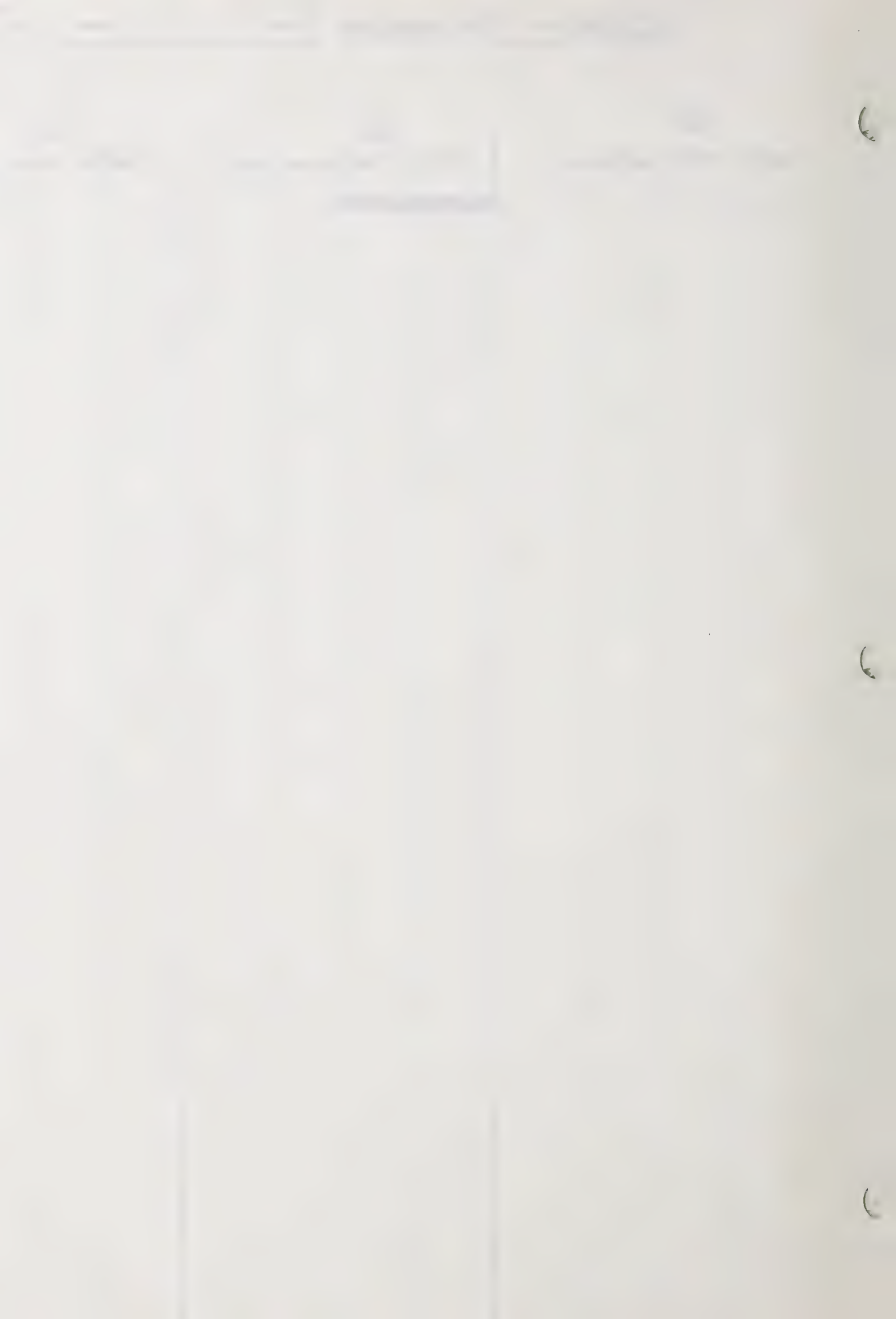
(16)

Right testis anterior

|||||

(17)

Testes even





Callisaurus draconoides Immature (<70mm S-V)

(15)

Left testis anterior

(16)

Right testis anterior

(17)

Testes even

|||



Callisaurus draconoides Adult ♂ (70+ mm S-V)

	B	B1	B2	B3
Jan				
Feb				
Mar				
Apr				I
May		I	III	IIIIIIIIII
Jun				
Jul				III
Aug				IIIIII
Sep				I
Oct				
Nov				
Dec				





Callisaurus draconoides Immature ♂

	B	B1	B2	B3
Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				





Calisaurus draconoides Adult ♀ (65<sup>+</sup>mm. S-V)

①⑨ LEFT OVARY ANTERIOR	①⑧ RIGHT OVARY ANTERIOR	②⑦ OVARIES EVEN
	X/X/X/10/1	X/X/X/11



Callisaurus draconoides

EGGS IN OVIDUCT

LEFT

RIGHT

NO. of EGGS	0	1	2	3	4	5	6	7	8	9	10		0	1	2	3	4	5	6	7	8	9	10
NO. of TAG																							
(5/1/60) 76			✓													✓							
(5/1/60) 83		✓													✓								
(5/9/60) 86			✓													✓							
(7/17/60) 113		✓													✓								
(7/10/61) 152		✓													✓								
(8/12/64) 246			✓													✓							





Callisaurus draconoides  
SIZE OF EGGS IN OVIDUCT

LEFT

RIGHT

LIZARD NO

SIZE IN mm

76 15.1 x 9.2; 14.7 x 8.1

83 17.0 x 7.8

86 15.3 x 9.0; 15.4 x 9.1

113 17.2 x 13.1

152 16.4 x 8.5

246 12.9 x 8.1; 12.8 x 8.7

$\Sigma X = 136.8 \times 81.6$

$N = 9$

$\bar{X} = 15.2 \times 9.1 \text{ mm}$

~~Range =~~

SIZE IN mm <sup>Collapsed</sup>

14.1 x 7.9; 15.4 x 7.5; ~~14.1 x 7.9~~

14.6 x 7.0; 15.5 x 8.0

15.4 x 9.0; 15.3 x 8.5; 14.0 x 9.3

16.6 x 13.7; 16.8 x 13.1

16.3 x 8.7; 16.0 x 9.0

14.3 x 8.7; 14.1 x 8.7; 14.1 x 9.0

$\Sigma X = 212.5 \times 129.4$

$N = 14$

$\bar{X} = 15.2 \times 9.2 \text{ mm}$

$\Sigma X = 349.3 \times 211.0$

$N = 23$

$\bar{X} = 15.2 \times 9.2 \text{ mm}$

Range = 12.8 x 7.0 mm to 17.2 x 13.1 mm





Callisaurus draconoides  
OVA WITH YOLK

LEFT OVARY

RIGHT OVARY

NUMBER OF OVA

1 IIII

. IIII

2 ~~IIII~~ IIII

~~IIII~~ IIII

3 III

III

4

I

5

I

6

7

8

9

10



Callisaurus draconoides  
FAT BODIES  
(7)

MONTH	ADULT		IMMATURE	
	♂ (70+mm.)	♀ (65+mm.)	♂	♀
JAN.				
FEB.				
MAR. III 9		I		
APR. IIII 18		III 12	IIII	
MAY <del>IIII</del> III 31		<del>IIII</del> III 31		
JUN. II 7		III 12	II	I
JUL. III 15		<del>II</del> II 21	II	II
AUG. <del>IIII</del> III 28		<del>II</del> III 18		I
SEPT. I		II 8	I	
OCT. III 6		I	II I	I
NOV.				
DEC.				





Callisaurus draconoides Adult (65+ mm S-V)

Left ovary

Right ovary

1  
2 II  
3 I  
4 I  
5 III  
6 I  
7 ~~IIII~~  
8 ~~IIII~~  
9 ~~IIII~~ III  
10 ~~IIII~~  
11 ~~IIII~~  
12 III  
13 I  
14 I  
15  
25  
30 I

I  
I  
II  
III  
~~II~~  
II  
IIII  
IIII  
IIII  
IIII  
II  
II  
II  
II





Callisaurus draconoides Immature

No.

Left ovary

Right ovary

1

2

3

4<sup>1</sup>

5<sup>1</sup>

6 ~~||||~~

7 ~~||||~~

8 ~~||||~~

9 ~~||||~~

10 "

11<sup>1</sup>

12 "

13

|||

~~||||~~

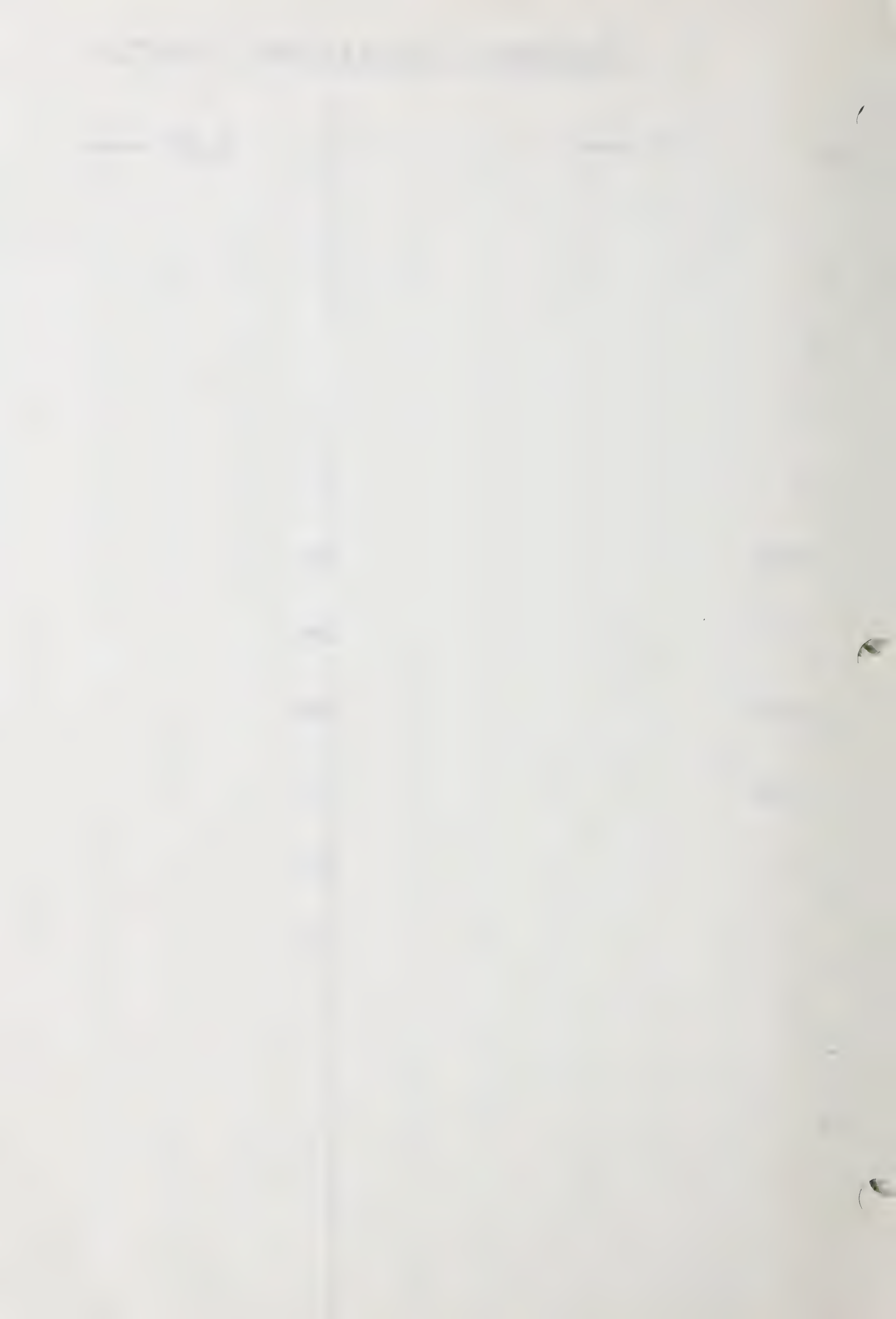
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Callisaurus draconoides Adult ♀ (65+ mm S-V)

	B	B1	B2	B3
Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				





Callisaurus draconoides Immature

B

B1

B2

B3

Jan

Feb

Mar

Apr

May 14

Jun

Jul

Aug

Sep

Oct

Nov

Dec





*Chemidophorus*  
*tigris*

Cnemidophorus  
tigris

Potentially Breeding Cnemidophorus tigris ♂♂ (70+ mm, 5-V)

Totals, 1958-1963

Date	# ♂	No ♂	Total	% ♂
Sep '58	0	1	1	0
May '59	1	0	1	100
Jul. '59	1	1	2	50
Aug.	0	1	1	0
Sep	0	2	2	0
Apr. '60	2	0	2	100
May	4	1	5	80
Jun.	0	3	3	0
Jul.	4	1	5	80
Apr. '61.	2	0	2	100
May	1	4	5	20
Jun.	2	0	2	100
Apr. '62	3	1	4	75
May	14	0	14	100
Aug.	1	2	3	33
Mar '63	0	1	1	0
May	0	4	4	0
Apr. '64	2	1	3	66
May	0	1	1	0

Month	# ♂	No ♂	Total	% ♂
Mar.	0	1	1	0
Apr.	7	1	8	88
May	20	9	29	69
Jun	2	3	5	40
Jul.	5	2	7	71
Aug	1	3	4	25
Sep.	0	3	3	0
Total			57	





Cnemidophorus tigris Adult ♀ (70<sup>+</sup> mm. S-V)

(19)

LEFT OVARY ANTERIOR

///

(18)

RIGHT OVARY ANTERIOR

///

(20)

OVARIES EVEN

~~///~~ ~~///~~ ~~///~~





COLEONYX VARIEGATUS

COIFONYX VARIEGATUS

# COLONYX VARIEGATUS

## TOTAL COLLECTED

MONTH

1944

1945

♂

♀

TOTAL

♂

♀

TOTAL

JAN

-

-

-

-

-

-

FEB

-

-

-

-

-

-

MAR

-

-

-

4

2

6

APR

2

-

2

75

57

132

MAY

-

-

-

33

30

63

JUN

2

1

3

37

28

65

JUL

-

-

-

8

7

15

AUG

-

1

1

18

15

33

SEP

2

2

4

8

15

23

OCT

1

-

1

9

6

15

NOV

-

1

1

1

-

1

DEC

-

-

-

-

-

-

7

5

12

193

160

353

TOTALS





LUSITANUS VARIETALIS PERIODICITY CHART

MALE

ENLARGED TESTIS (> 25 mm<sup>2</sup>)

1959 4/24 - 8/19

1960 4/16 - 8/9

1961 3/26 - 8/26

1962 4/13 - 8/11

3/24 - 8/22

CONVOLUTED EPIDIDYMUS

1959 4/24 - 8/19

1960 4/12 - 8/9

1961 3/26 - 8/26

1962 4/13 - 8/11

3/26 - 8/22

MOTILE SPERM

1959 4/24 - 8/19

1960 4/12 - 8/9

1961 3/26 - 8/26

1962 4/13 - 8/11

3/26 - 7/15

OK

FEMALE

OVA ACCUMULATED YOLK

1959 4/24 - 8/18

1960 4/12 - 8/9

1961 4/15 - 7/12

1962 4/13 - 8/11

4/17(63) - 4/19(58)



C. V. (cont)

ENLARGED EGGS (74 mm)

1959 4/24 - 8/18  
 1960 4/12 - 8/1  
 1961 4/15 - 8/11  
 1962 4/13 - 8/11  
 4/7(63) - 8/21(58)

CONVOLUTED CVIDENTS

1959 7/24 - 7/20  
 1960 4/12 - 7/3  
 1961 4/15 - 7/12  
 1962 4/13 - 7/15  
 4/7(63) - 7/11(58)

Egg in CVIDENTS

1959 4/24 - 6/11  
 1960 4/12 - 7/3  
 1961 4/15 - 8/11  
 1962 4/13 - 7/20  
 4/12 - 7/11(58)

CORPUS LUTEA

1959 5/22 - 6/11  
 1960 4/30 - 9/3  
 1961 4/15 - 8/11  
 1962 4/13 - 8/4  
 4/12 - 7/3





# Potentially Breeding *Colonyx variegatus* ♂♂ (55+mm, S-V)

(smallest ♂ = 51 mm)  
(largest ♂ = " )

## Totals, 1959-1961

Date	# ♂	No ♂	Total	% ♂
Apr. '59	5	0	5	100
May	8	2	10	80
June	6	0	6	100
July			0	
Aug.	4	2	6	67
Sept.	0	1	1	0
Oct.	0	6	6	0
Nov.	0	1	1	0
Mar. '60	0	1	1	0
Apr.	21	3	24	88
May	9	0	9	100
June	5	0	5	100
July			0	
Aug.	2	0	2	100
Sept.	3	0	3	100
Oct.	0	2	2	0
Mar. '61	2	0	2	100
Apr.	15	2	17	88
May	5	2	7	71
June	21	1	22	95
July	3	0	3	100
Aug.	1	3	4	25
Sept.	3	0	3	100
Oct.	0	1	1	0
Apr. '62	7	0	7	100
Jun.	2	0	2	100
Jul.	5	0	5	100
Aug.	5	1	6	83
Sep.	2	0	2	100
Apr. '63	8	3	11	73

Month	# ♂	No ♂	Total	% ♂
Mar.	2	1	3	67
Apr.	41	5	46	89
May	22	4	26	85
June	32	1	33	97
July	3	0	3	100
Aug.	7	5	12	58
Sept.	6	1	7	86
Oct.	0	9	9	0
Nov.	0	1	1	0
Total			140	

Left Column	Right Column	Left Column	Right Column
10	10	10	10
20	20	20	20
30	30	30	30
40	40	40	40
50	50	50	50
60	60	60	60
70	70	70	70
80	80	80	80
90	90	90	90
100	100	100	100
110	110	110	110
120	120	120	120
130	130	130	130
140	140	140	140
150	150	150	150
160	160	160	160
170	170	170	170
180	180	180	180
190	190	190	190
200	200	200	200
210	210	210	210
220	220	220	220
230	230	230	230
240	240	240	240
250	250	250	250
260	260	260	260
270	270	270	270
280	280	280	280
290	290	290	290
300	300	300	300
310	310	310	310
320	320	320	320
330	330	330	330
340	340	340	340
350	350	350	350
360	360	360	360
370	370	370	370
380	380	380	380
390	390	390	390
400	400	400	400
410	410	410	410
420	420	420	420
430	430	430	430
440	440	440	440
450	450	450	450
460	460	460	460
470	470	470	470
480	480	480	480
490	490	490	490
500	500	500	500
510	510	510	510
520	520	520	520
530	530	530	530
540	540	540	540
550	550	550	550
560	560	560	560
570	570	570	570
580	580	580	580
590	590	590	590
600	600	600	600
610	610	610	610
620	620	620	620
630	630	630	630
640	640	640	640
650	650	650	650
660	660	660	660
670	670	670	670
680	680	680	680
690	690	690	690
700	700	700	700
710	710	710	710
720	720	720	720
730	730	730	730
740	740	740	740
750	750	750	750
760	760	760	760
770	770	770	770
780	780	780	780
790	790	790	790
800	800	800	800
810	810	810	810
820	820	820	820
830	830	830	830
840	840	840	840
850	850	850	850
860	860	860	860
870	870	870	870
880	880	880	880
890	890	890	890
900	900	900	900
910	910	910	910
920	920	920	920
930	930	930	930
940	940	940	940
950	950	950	950
960	960	960	960
970	970	970	970
980	980	980	980
990	990	990	990
1000	1000	1000	1000

Potentially breeding Coleonyx variegatus ♂♂ (55<sup>+</sup> mm, S-U)

Totals, 1959-1963

Date	# ♂	No ♂	Total	% ♂
May '63	6	1	7	86
Apr <del>Jun</del> '64	8	3	11	73

Month	# ♂	No ♂	Total	% ♂
Mar	2	1	3	67
Apr.	56	8	64	88
May	28	5	33	85
Jun	34	1	35	97
Jul	8	0	8	100
Aug	12	6	18	67
Sep	8	1	9	89
Oct	0	9	9	0
Nov.	0	1	1	0
			<u>180</u>	





*Coleonyx variegatus* - (55<sup>+</sup> mm, S-V)

Left Testis Volume - Summary 1959-1963

Month	$\Sigma X$	$N$	$\bar{X}$
Mar	168	4	42.0
Apr	3878	64	60.6
May	1806	32	56.4
Jun	2018	37	54.5
Jul	358	8	44.8
Aug	556	18	30.9
Sep	80	8	10.0
Oct	108	9	12.0
Nov	16	1	16.0



# Coleonyx variegatus Testis Volumes (55mm S-V)

1959  
Left Testis

APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV
35	26	29	—	21	3	13	16
62	34	56		60		15	
50	41	51		25		19	
59	4	144		42		7	
60	56	54		2		19	
	100	62		26		19	
	56	56					
	37	42					
	31	18					
	42						

TOTAL VOL	266	427	512	0	176	3	92	16
MEAN	53.2	42.7	56.9	0	29.3	3	15.3	16
RANGE	35-62	4-100	18-144	0	2-60	—	7-19	—
NO. LIZARDS	5	10	9	0	6	1	6	1

Right Testis

35	35	11	—	25	3	13	18
62	44	45		56		15	
50	36	59		24		26	
70	3	149		51		8	
70	45	46		6		17	
	85	56		41		16	
	47	53					
	41	46					
	23	18					
	49						

TOTAL VOL	287	408	483	0	203	3	95	18
MEAN	57.4	40.8	53.7	0	33.8	3	15.8	18
RANGE	35-70	3-85	11-149	0	6-56	—	8-26	—
NO. LIZARDS	5	10	9	0	6	1	6	1



Station	1945	1946	1947	1948	1949	1950	1951	1952
1	100	100	100	100	100	100	100	100
2	100	100	100	100	100	100	100	100
3	100	100	100	100	100	100	100	100
4	100	100	100	100	100	100	100	100
5	100	100	100	100	100	100	100	100
6	100	100	100	100	100	100	100	100
7	100	100	100	100	100	100	100	100
8	100	100	100	100	100	100	100	100
9	100	100	100	100	100	100	100	100
10	100	100	100	100	100	100	100	100



Station	1945	1946	1947	1948	1949	1950	1951	1952
11	100	100	100	100	100	100	100	100
12	100	100	100	100	100	100	100	100
13	100	100	100	100	100	100	100	100
14	100	100	100	100	100	100	100	100
15	100	100	100	100	100	100	100	100
16	100	100	100	100	100	100	100	100
17	100	100	100	100	100	100	100	100
18	100	100	100	100	100	100	100	100
19	100	100	100	100	100	100	100	100
20	100	100	100	100	100	100	100	100



Coleonyx variegatus Testis Volumes (55 mm S-V)

1960

Left Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
22	54	~	100	—	9	25	8
24	33	24	28		28	5	4
	68	56	35				
	23	62	53				
	50	83	29				
	36	60					
	54	73					
	66	72					
	60	50					
	9						
	113						
	79						
	83						
	35						
	62						
	79						
	37						
	72						
	112						
	31						
	91						
	72						
	73						
	63						

TOTAL VOL.	46	1455	480	245	0	37	30	12
MEAN	23.0	60.6	60.0	49.0	0	18.5	15.0	6.0
RANGE	22-24	9-113	24-83	28-100	0	9-28	5-25	4-8
NO. LIZARDS	2	24	8	5	0	2	2	2



# Coleonyx variegatus Testis Volumes (55+ mm S-V)

1960  
Right Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
23	57	30	103	—	10	16	8
30	32	18	42		40	4	3
	60	62	29				
	36	65	34				
	59	95	42				
	50	80					
	40	74					
	51	59					
	54	56					
	14						
	114						
	48						
	54						
	33						
	45						
	77						
	40						
	66						
	95						
	31						
	77						
	71						
	68						
	79						

TOTAL VOL.	53	1351	539	250	0	50	20	11
MEAN	26.5	56.3	59.9	50.0	0	25.0	10.0	5.5
RANGE	23-30	14-114	18-95	29-103	0	10-40	4-16	3-8
NO. LIZARDS	2	24	9	3	0	2	2	2





Coleonyx variegatus Testis Volumes (55<sup>+</sup> mm S-V)

1961

Left Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
<del>79</del>	<del>91</del>	37	102	19	60	9	4
<del>43</del>	<del>43</del>	12	45	50	36	5	
	<del>67</del>	97	32	62	37	18	
	28	89	41		45		
	81	60	21				
	101	93	<del>20</del>				
	69	72	40				
	108		101				
	93		60				
	57		36				
	65		69				
	63		46				
	46		57				
	65		68				
	100		37				
	54		64				
	67		60				
			56				
			41				
			56				
			51				

TOTAL VOL.	122	1198	470	1103	131	178	32	4
MEAN	61.0	70.5	67.1	52.5	43.7	44.5	10.7	4
RANGE	43-79	28-108	22-97	21-102	19-62	36-60	5-18	—
NO. LIZARDS	2	17	7	21	3	4	3	1

1870

1871

1872

1873

1874

1875

1876

1877

1878

1879

1880

1881

1882

1883

1884

1885

1886

1887

Coleonyx variegatus Testis Volumes (55+mm S-V)

1961

Right Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
112	72	39	104	51	60	8	5
20	56	32	46	42	45	4	
	23	74	37	60	30	11	
	83	60	27		29		
	92	48	21				
	69	87	<del>20</del>				
	69	69	33				
	105	<del>41</del>	85				
	92		60				
	50		25				
	66		53				
	40		39				
	39		60				
	74		79				
	112		39				
	81		66				
	73		71				
			51				
			35				
			54				
			51				

TOTAL VOL.	132	1196	409	1056	153	164	23	5
MEAN	66.0	70.4	58.4	50.3	51.0	41.0	7.7	5
RANGE	20-112	23-112	32-87	20-104	42-60	29-60	4-11	—
NO. LIZARDS	2	17	7	21	3	4	3	1

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Date	Description	Amount	Balance	Total	Remarks	Signature
1890	Jan 1					
	Feb 1					
	Mar 1					
	Apr 1					
	May 1					
	Jun 1					
	Jul 1					
	Aug 1					
	Sep 1					
	Oct 1					
	Nov 1					
	Dec 1					
	1891					
	Jan 1					
	Feb 1					
	Mar 1					
	Apr 1					
	May 1					
	Jun 1					
	Jul 1					
	Aug 1					
	Sep 1					
	Oct 1					
	Nov 1					
	Dec 1					
	1892					
	Jan 1					
	Feb 1					
	Mar 1					
	Apr 1					
	May 1					
	Jun 1					
	Jul 1					
	Aug 1					
	Sep 1					
	Oct 1					
	Nov 1					
	Dec 1					

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# Coleonyx variegatus Testis Volumes (55+mm S-V)

1962  
Left Testis

APR	MAY	JUN	JUL	AUG	SEPT
94	—	81	54	8	10
101		77	37	37	5
65			45	25	
70			32	36	
51			59	29	
54				30	
56					

TOTAL VOL. 491	0	158	227	165	15
MEAN 70.1	0	79.0	45.4	27.5	7.5
RANGE 51-101	0	77-81	32-59	8-37	5-10
NO. LIZARDS 7	0	2	5	6	2

Right Testis

APR	MAY	JUN	JUL	AUG	SEPT
91	—	87	50	~	11
107		69	43	44	5
131			45	29	
144			33	35	
39			60	22	
48				32	
65					

TOTAL VOL. 625	0	156	231	162	16
MEAN 89.3	0	78.0	46.2	32.4	8.0
RANGE 39-144	0	69-87	33-60	22-44	5-11
NO. LIZARDS 7	0	2	5	5	2

NOTE  
OMISSION

# Handwritten title or header at the top of the page.

Year	Month	Day	Time	Location
1911	Jan	1	10:00	...
1911	Jan	2	10:00	...
1911	Jan	3	10:00	...
1911	Jan	4	10:00	...
1911	Jan	5	10:00	...
1911	Jan	6	10:00	...
1911	Jan	7	10:00	...
1911	Jan	8	10:00	...
1911	Jan	9	10:00	...
1911	Jan	10	10:00	...
1911	Jan	11	10:00	...
1911	Jan	12	10:00	...
1911	Jan	13	10:00	...
1911	Jan	14	10:00	...
1911	Jan	15	10:00	...
1911	Jan	16	10:00	...
1911	Jan	17	10:00	...
1911	Jan	18	10:00	...
1911	Jan	19	10:00	...
1911	Jan	20	10:00	...
1911	Jan	21	10:00	...
1911	Jan	22	10:00	...
1911	Jan	23	10:00	...
1911	Jan	24	10:00	...
1911	Jan	25	10:00	...
1911	Jan	26	10:00	...
1911	Jan	27	10:00	...
1911	Jan	28	10:00	...
1911	Jan	29	10:00	...
1911	Jan	30	10:00	...
1911	Jan	31	10:00	...

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Year	Month	Day	Time	Location
1911	Jan	1	10:00	...
1911	Jan	2	10:00	...
1911	Jan	3	10:00	...
1911	Jan	4	10:00	...
1911	Jan	5	10:00	...
1911	Jan	6	10:00	...
1911	Jan	7	10:00	...
1911	Jan	8	10:00	...
1911	Jan	9	10:00	...
1911	Jan	10	10:00	...
1911	Jan	11	10:00	...
1911	Jan	12	10:00	...
1911	Jan	13	10:00	...
1911	Jan	14	10:00	...
1911	Jan	15	10:00	...
1911	Jan	16	10:00	...
1911	Jan	17	10:00	...
1911	Jan	18	10:00	...
1911	Jan	19	10:00	...
1911	Jan	20	10:00	...
1911	Jan	21	10:00	...
1911	Jan	22	10:00	...
1911	Jan	23	10:00	...
1911	Jan	24	10:00	...
1911	Jan	25	10:00	...
1911	Jan	26	10:00	...
1911	Jan	27	10:00	...
1911	Jan	28	10:00	...
1911	Jan	29	10:00	...
1911	Jan	30	10:00	...
1911	Jan	31	10:00	...

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*Coleonyx variegatus* - Testis volumes (55+ mm, S-V)

1963

Left Testis

Apr	May
33	30
24	36
68	62
65	81
42	97
22	30
60	93
35	
18	
45	
56	

$\Sigma X$	468	429
$N$	11	7
$\bar{X}$	42.5	61.3
Range	18-68	30-97

Right Testis

Apr	May
40	62
36	40
77	77
38	81
32	96
22	52
35	53
41	<del>26</del>
57	
41	

$\Sigma X$	419	461
$N$	10	<del>8</del> 7
$\bar{X}$	41.9	65.8
Range	22-77	40-96





Testis Volumes, *Coleonyx variegatus* Adults (55+ mm S-V)

Left testis larger

|||||  
|||||

Right testis larger

|||||  
|||||

Testes same size

|||||



Testis Volumes, *Coleonyx variegatus* Immature (<55 mm SVL)

Left testis larger

||||

Right testis larger

Testes same size





Coleonyx variegatus Immature (<55 mm SL)

⑮  
Left testis anterior

⑯  
Right testis anterior

⑰  
Testes even



Coleonyx variegatus Adults (55+mm S-V)

⑮

Left testis anterior

⑯

Right testis anterior

⑰

Testes even

|||||

||









Coleonyx variegatus  
EGGS IN OVIDUCT

LEFT

RIGHT

[illegible]

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# Coleonyx variegatus

## SIZE OF EGGS IN OVIDUCT

LIZARD NO	LEFT	RIGHT	
	SIZE IN mm.	SIZE IN mm.	
27	15.5 x 9.0	16.0 x 9.0	
36	17.0 x 8.4	16.7 x 8.6	<u>Eggs laid</u>
38	13.4 x 7.1	13.7 x 7.5	19.6 x 9.8 mm
52	x	14.9 x 7.5	19.7 x 9.8 "
55	16.7 x 8.2	17.2 x 8.2	
89	17.5 x 13.4	18.1 x 13.8	
105	18.0 x 8.3	18.0 x 8.3	
110	16.6 x 8.4	17.5 x 8.4	
131	19.4 x 9.7	19.5 x 9.9	
135	Deformed	Deformed	
139	18.4 x 9.4	17.3 x 9.3	
140	14.0 x 9.0	14.6 x 8.9	
167	15.0 x 7.8	15.8 x 8.0	
181	18.0 x 9.0	18.0 x 9.0	
182	18.9 x 9.3	18.9 x 8.7	
201	20.0 x 9.9	20.2 x 9.9	
215	19.0 x 9.3	21.9 x 9.5	
239	18.9 x 7.8	19.3 x 7.4	
241	18.1 x 8.3	17.4 x 8.2	
242	15.8 x 8.0	16.4 x 7.8	
245	17.0 x 9.5	15.9 x 8.5	
263	19.2 x 9.4	18.4 x 9.1	
278	18.0 x 7.8	19.9 x 7.8	
290	14.1 x 8.0	13.5 x 6.8	
294	17.4 x 7.0	18.0 x 8.3	
300	15.1 x 7.7	16.1 x 8.6	
341	18.3 x 9.1	20.0 x 9.1	
342	16.6 x 8.5	16.3 x 9.1	
346	18.8 x 9.1	18.4 x 8.9	
367	<del>13.7 x 4.9</del>	14.1 x 4.2	
	$\Sigma X = 478.4$ $\Sigma X = 241.6$ $N = 28$ $\bar{X} = 17.1 \times 8.6 \text{ mm}$	$\Sigma X = 502.0$ $\Sigma X = 248.3$ $N = 29$ $\bar{X} = 17.3 \times 8.6 \text{ mm}$	
			<u>Total</u>
			$\Sigma X = 980.14 \times 489.90$
			$N = 57$
			$\bar{X} = 17.2 \times 8.6 \text{ mm}$
			Range = 13.4 x 4.2 mm to
			21.9 x 13.8 mm









Colonyx variegatus  
FAT BODIES

⑦

ADULT  
(55+mm)

IMMATURE

♂

♀

♂

♀

MONTH

JAN.

FEB.

MAR. IIII

5

II

3

APR. ~~IIII~~ ~~IIII~~ ~~IIII~~

66

~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~

MAY ~~IIII~~

34

~~IIII~~

30

JUN. IIII

30

IIII

28

JUL. 8

I

7

AUG. II ~~IIII~~

II

16

SEPT. III 10

III

17

OCT. IIII 10

IIII

6

NOV. I

I

DEC.



Coleonyx variegatus Adult (55+ mm S-V)  
(No. ova)

Left ovary

Right ovary

1 III

2 I

3 III

4 IIIIIII

5 IIIIIIIIIIIIIIIII

6 IIIIIIIIIIIIIIIIIIIIIII

7 IIIIIIIIIIIIIIIII

8 IIIII

9 II

10 II

11

III

I

IIIIIIII

IIIIIIIIIIIIIIIIIIIIII

IIIIIIIIIIIIIIIIIIIIIIII

IIIIIIIIIIIIIIIIII

IIIIIIII

II

II





Coleonyx variegatus Immature

Left ovary

Right ovary

1

2

3 "

4

5<sup>1</sup>

6<sup>1</sup>

7

8

9

10<sup>1</sup>

11



IPSOSAURUS DORSALIS

DIPSOSAURUS DORSALIS



# Dipsosaurus dorsalis Testis Histology

<u>Figure No.</u>	<u>Stage</u>	<u>Lizard No.</u>	<u>Capture Date</u>	<u>Magnification</u>
4 A	1 (normal)	10	4/10/59	605
4 B	1 (abnormal)	596	5/6/62	420
5 A	2	594	5/6/62	590
5 B	3	574	4/23/62	560
6 A	4	592	5/6/62	330
6 B	5	92	3/28/60	390
7	6	241	6/9/60	390
8 A	7	40	6/10/59	340
8 B	7 (interstitial cells)	336	8/11/60	370
9 A	8	82	8/31/59	605
9 B	immature	78	8/20/59	605
12 A	non-breeding epididymis	10	4/10/59	670
12 B	breeding epididymis	241	6/9/60	360



# DIPSOSAURUS DORSALIS

TOTAL COLLECTED

MONTH	<u>IMM</u>		TOTAL	<u>ADULT</u> <u>MALES</u>						TOTAL
	♂	♀		1958	1959	1960	1961	1962	1963	
JAN	-	-	-	-	-	-	-	-	-	-
FEB	-	-	-	-	-	-	-	-	-	-
MAR	-	-	-	-	-	1	-	6	-	7
APR	16	10	26	-	6	24	9	22	4	65
MAY	9	9	18	-	2	47	21	14	3	89
JUN	16	10	26	-	17	41	30	14	-	102
JUL	16	12	28	-	4	17	15	18	-	54
AUG	13	8	21	5	4	17	13	6	-	45
SEP	5	2	7	-	-	6	4	4	-	14
OCT	-	-	-	-	-	-	1	-	-	1
NOV	-	-	-	-	-	-	-	-	-	-
DEC	-	-	-	-	-	-	-	-	-	-
TOTAL	75	51	126	5	33	153	93	86	7	377

## ADULT FEMALES

	1958	1959	1960	1961	1962	1963	TOTAL
JAN	-	-	-	-	-	-	-
FEB	-	-	-	-	-	-	-
MAR	-	-	-	-	2	-	2
APR	-	3	17	8	16	5	49
MAY	-	2	30	11	9	-	52
JUN	1	2	18	6	6	-	33
JUL	-	1	4	9	6	-	20
AUG	2	1	17	7	7	-	34
SEP	1	1	6	-	2	-	10
OCT	-	-	-	-	-	-	-
NOV	-	-	-	-	-	-	-
DEC	-	-	-	-	-	-	-
TOTAL	4	10	92	41	48	5	200





MALEENLARGED TESTIS ( $>100 \text{ mm}^3$ )

1959 4/21 to 6/23

1960 3/28 to 8/11

1961 4/19 to 7/23

1962 3/29 to 8/8

3/28 - 8/25 (58)

## CONVOLUTED EPIDIDYMUS

1959 5/23 to 6/23

1960 7/12 to 7/23

1961 5/16 to 7/23

1962 4/24 to 6/21

7/1 (63) - 7/25

## MOTILE SPERM

1959 5/23 to 6/23

1960 4/13 to 7/23

1961 5/6 to 7/23

1962 4/24 to 6/21

7/13 - 7/23

FEMALE

## OVA ACCUMULATED YOLK

1959 5/23 - 6/12

1960 7/12 - 7/23

1961 5/6 - 7/11

1962 4/24 - 8/10

7/12 8/10



D. D. (CONT.)

ENLARGED EGGS (> 5 mm.)

1959 3/22 - 4/14

1960 4/12 - 7/23

1961 5/14 - 7/11

1962 4/24 - 8/10

7/12 - 8/10

CONVOLUTED OVIDUCTS

1959 4/10 - 7/7

1960 4/12 - 7/16

1961 4/11 - 8/21

1962 3/28 - 7/6

3/28 - 7/20 (-8)

OK

EGGS IN OVIDUCTS

1959 -

1960 6/10 - 8/9

1961 8/14

1962 6/13 - 8/8

6/10 - 8/14

OK

CORPORA LUTEA

1959 -

1960 6/10 - 8/10

1961 7/17 - 8/14

1962 6/13 - 8/8

6/10 - 8/14





Dipsosaurus dorsalis ♂♂ (115<sup>+</sup>mm, S-V)

Number and Sites Collected, 1958-1963

<u>Glamis</u>	<u>No.</u>
1958	5
1959	7
1960	22
1961	14
1962	14
1963	0
Total -	62

<u>Totals</u>	
1958	5
1959	31
1960	149
1961	91
1962	86
1963	7
Total -	369

<u>Dale Lake</u>	
1959	11
1960	51
1961	25
1962	24
1963	6
Total -	117

<u>Palm Springs</u>	
1959	13
1960	76
1961	52
1962	48
1963	1
Total -	190

<u>Total adults autopsied</u>	
Glamis -	106
Dale Lake -	166
Palm Springs -	294
Total -	566



Dipsosaurus dorsalis ♀♀ (110+mm, S-V)

Total Examined

Glamis - 44

Dale Lake - 49

Palm Springs - 104





# Potentially Breeding *Dipsosaurus dorsalis* (115 mm, 3-V)

(Smallest ♂ = 102 mm)  
(largest ♂ = 145 mm)

## Totals, 1958-1961

Date	# ♂	No ♂	Total	% ♂
Aug. '58	(2 slight)	5	5	0
Apr. '59	0	6	6	0
May	2	0	2	100
June	15	1	16	94
July	0	4	4	0
Aug.	0	4	4	0
Mar. '60	0	1	1	0
Apr.	16	8	24	61
May	44	3	47	94
June	40	1	41	98
July	8	9	17	47
Aug.	(2 slight)	17	17	0
Sept.	0	6	6	0
Apr. '61	0	9	9	0
May	(4 slight)	14	21	33
June	24	1	30	97
July	(2 slight)	6	15	60
Aug.	0	13	13	0
Sept.	0	4	4	0
Oct.	0	1	1	0
Mar. '62	0	6	6	0
Apr.	8	14	22	36
May	9	7	16	56
Jun.	14	1	15	93
Jul.	15	3	18	83
Aug.	34	2	6	<del>67</del>
Sept.	0	4	4	0
Apr. '63	0	4	4	0
May	1	2	3	33

Month	# ♂	No ♂	Total	% ♂
Mar.	0	1	1	0
Apr.	16	23	39	41
May	53	17	70	76
June	84	3	87	96
July	17	19	36	47
Aug.	0	39	39	0
Sept.	0	10	10	0
Oct.	0	1	1	0
Total			283	

## Totals, 1958-1963

Month	# ♂	No ♂	Total	% ♂
Mar.	0	7	7	0
Apr.	24	41	65	37
May	63	26	89	71
Jun.	98	4	102	96
July	32	22	54	58
Aug.	0	45	45	0
Sep.	0	14	14	0
Oct.	0	1	1	0
Total			377	

Table 1: Summary of Data				Table 2: Detailed Data			
Category	Sub-Category	Value 1	Value 2	Item ID	Item Name	Quantity	Unit Price
Electronics	Smartphones	100	500	001	iPhone 12	10	500
	Tablets	50	300	002	iPad Pro	5	300
	Laptops	20	1000	003	MacBook Pro	2	1000
	Smart TVs	15	800	004	Samsung QLED	3	800
	Wearables	30	150	005	Apple Watch	30	150
Home Goods	Furniture	120	1200	006	Sofa	12	1200
	Decor	80	400	007	Vase	80	400
	Lighting	60	300	008	Lamp	60	300
	Textiles	40	200	009	Curtains	40	200
	Storage	30	150	010	Shelf	30	150
Clothing	Shirts	200	1000	011	White T-Shirt	200	1000
	Pants	150	750	012	Blue Jeans	150	750
	Shoes	100	500	013	Running Shoes	100	500
	Accessories	50	250	014	Wallet	50	250
	Outerwear	30	150	015	Coat	30	150

Potentially Breeding Dipsosaurus dorsalis ♂♂ (115+mm, 3-V)

	<u>Palm Springs</u>				<u>29 Palms</u>				<u>Glamis</u>			
<u>Date</u>	<u>#(♂)</u>	<u>No(♀)</u>	<u>Total</u>	<u>%(♂)</u>	<u>#(♂)</u>	<u>No(♀)</u>	<u>Total</u>	<u>%(♂)</u>	<u>#(♂)</u>	<u>No(♀)</u>	<u>Total</u>	<u>%(♂)</u>
Aug. '58			0				0				0	
Apr. '59	0	4	4	0	0	1	1	0			0	
May			0				0		2	0	2	100
June	6	0	6	100	6	0	6	100	3	1	4	75
July	0	2	2	0	0	2	2	0			0	
Aug.	0	1	1	0	0	2	2	0	0	1	1	0
Mar. '60	0	1	1	0			0				0	
Apr.	6	6	12	50	6	1	7	86	2	0	2	100
May	23	0	23	100	13	0	13	100	7	3	10	70
June	17	1	18	94	15	0	15	100	8	0	8	100
July	3	4	7	43	4	4	8	50	1	1	2	50
Aug. (+slight)	0	15	15	0	0	2	2	0			0	
Sept. (2=light)	0	2	2	0	0	4	4	0			0	
Apr. '61	0	5	5	0			0		0	4	4	0
May	4	5	9	44	2	8	10	20	2	0	2	100
June	11	0	11	100	13	0	13	100	4	0	4	100
July	7	4	11	64	0	2	2	0	2	0	2	100
Aug.	0	11	11	0			0		0	2	2	0
Sept.	0	4	4	0			0				0	
Oct.	0	1	1	0			0				0	
Mar '62	0	6	6	0			0				0	
Apr '62	7	0	7	100	0	6	6	0	1	8	9	11
May	5	0	5	100	2	7	9	22	2	0	2	100
Jun.	10	0	10	100	3	1	4	75	1	0	1	100
Jul.	12	1	13	92	2	2	4	50	1	0	1	100
Aug.	4	0	4	100	0	1	1	0	0	1	1	0
Sep.	0	4	4	0			0				0	
Apr. '63	0	1	1	0	0	3	3	0			0	
May			0		1	2	3	33			0	





Dipsosaurus dorsalis (115<sup>+</sup>mm, S-V)

Left Testis volumes - Summary 1958-1963.

Month	$\Sigma X$	N	$\bar{X}$
Mar.	1001	7	143.0
Apr.	18640	65	286.8
May	26829	89	301.4
Jun	26827	102	263.0
Jul	6847	53	129.2
Aug	2503	45	55.6
Sep	669	14	47.8
Oct.	27	1	27



Dipsosaurus dorsalis Testis Volumes (115<sup>+</sup> mm S-V)

1958

Left Testis

AUG

79

24

115

28

33

TOTAL VOL. 279

MEAN 55.8

RANGE 24-115

NO. LIZARDS 5

Right Testis

AUG

79

24

112

34

33

TOTAL VOL. 282

MEAN 56.4

RANGE 24-112

NO. LIZARDS 5





*Dipsosaurus dorsalis* Testis Volumes (115<sup>+</sup> mm SV)

1959

APR	MAY	JUN	JUL	Left Testis	
				AUG	SEPT
55	246	261	41	31	
71	320	388	40	79	
105	<del>261</del>	<del>189</del>	55	83	
37	<del>388</del>	292	81	75	
67	<del>189</del>	265			
131	<del>292</del>	131			
	<del>265</del>	138			
		154			
		173			
		227			
		343			
		100			
		314			
		213			
		217			
		275			
		147			

TOTAL VOL.	466	566	3698	217	268
MEAN	77.7	283.0	217.5	54.3	67.0
RANGE	37-105	246-320 <sup>15</sup>	<del>15</del> -388	40-81	31-83
NO. LIZARDS	6	2	17	4	4



Dipsosaurus dorsalis Testis Volumes (115<sup>+</sup> mm S-V)

1959

Right Testis

APR MAY JUN JUL AUG

61 222 271 46 36

70 330 338 47 79

105 169 45 67

39 325 60 79

67 261

161 119

193

20

197

237

445

151

343

343

23<sup>7</sup>

375

162

TOTAL VOL 503 552 4186 198 261

MEAN 83.8 276.0 246.2 49.5 65.3

RANGE 39-161 222-330 20-445 45-60 36-79

NO. LIZARDS 6 2 17 4 4





Dipsosaurus dorsalis Testis Volumes (115<sup>mm</sup> SV)

1960

Left Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT
218	<del>443</del>	41	280	91	46	29
	584	582	420	59	66	36
	582	166	275	237	27	51
	343	280	246	315	134	25
	232	167	205	246	37	41
	308	47	141	227	27	94
	428	96	165	248	35	<del>32</del>
	401	445	218	150	55	<del>44</del>
	176	286	260	218	41	<del>67</del>
	200	350	290	326	26	
	246	336	232	128	59	
	217	510	180	48	26	
	275	280	256	67	45	
	86	358	169	110	29	
	836	<del>354</del>	193	50	96	
	456	237	217	33	57	
	662	251	422	69	57	
	692	516	350			
	1024	324	420			
	704	388	343			
	381	232	209			
	780	354	533			
	733	298	196			
206	573	441				
	508	872				
	469	483				
	86	331				
	139	368				
	275	398				
	712	508				



Dipsosaurus dorsalis Testis Volumes (cont.)

1960

Left Testis

MAR APR MAY JUN JUL AUG SEPT

— — 593 474  
456 499  
658 410  
464 326  
531 460  
548 188  
487 420  
457 315  
401 343  
362 450  
246 435  
292  
261  
205  
395  
381  
526

TOTAL VOL.	218	10995	16843	13941	2622	863	276
MEAN	218	458.1	358.4	340.0	154.2	50.8	46.0
RANGE	—	86-1024	41-712	141-872	33-326	26-134	25-94
NO. LIZARDS	1	24	47	41	17	17	6



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Dipsosaurus dorsalis Testis Volumes (115<sup>+</sup> mm SV)

1960

Right Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT
193	378	26	429	77	60	25
<del>773</del>	<del>583</del>	601	400	57	57	43
<del>593</del>	<del>583</del>	21	209	292	34	40
<del>280</del>	<del>343</del>	332	228	233	112	31
<del>256</del>	<del>256</del>	138	196	292	66	36
<del>355</del>	<del>355</del>	41	147	193	29	73
<del>416</del>	<del>416</del>	79	218	124	39	
<del>368</del>	<del>368</del>	388	209	169	32	
<del>167</del>	<del>167</del>	407	343	188	25	
<del>218</del>	<del>218</del>	341	246	265	25	
<del>244</del>	<del>244</del>	270	260	286	21	
<del>269</del>	<del>269</del>	472	158	46	33	
<del>241</del>	<del>241</del>	256	287	101	27	
<del>73</del>	<del>73</del>	358	188	101	28	
<del>1075</del>	<del>1075</del>	375	209	41	65	
<del>421</del>	<del>421</del>	297	276	33	47	
635	275	372	54	41		
893	533	398				
615	315	347				
712	420	360				
407	205	205				
723	343	686				
674	400	147				
193	557	471				
	133	682				
	395	320				
	275	343				
	157	314				
	362	343				
	637	435				



Lepidodactylus lorealis Testis Volumes (cont.)

1960

Right testis

MAR APR MAY JUN JUL AUG SEPT

558 508

369 422

621 464

533 290

703 448

502 231

461 394

450 368

232 355

338 398

235 663

282

193

205

372

401

460

TOTAL VOL. 193 10970 16324 13967 2552 741 248

MEAN 193 457.13 47.33 40.7 150.1 43.6 41.3

RANGE — 73-1075 21-703 147-686 41-292 21-112 25-73

NO. LIZARDS 1 24 47 41 17 17 6



Handwritten text, possibly a title or heading, located at the top center of the page. The text is faint and difficult to decipher.

Handwritten text, possibly a subtitle or a line of a list, located below the main heading.

A vertical column of handwritten text, possibly a list or a series of notes, located in the center-right portion of the page. The text is arranged in a single column and is difficult to read due to blurriness.

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Dipsosaurus dorsalis Testis Volumes (115 mm S-V)

1961

Left Testis

APR	MAY	JUN	JUL	AUG	SEPT	OCT
38	356	237	176	57	45	27
149	155	218	18	34	73	
31	263	280	121	57	67	
28	433	169	173	42	34	
39	<del>280</del>	165	32	26	<del>27</del>	
75	<del>165</del>	193	110	26		
157	47	251	167	47		
173	141	200	41	30		
84	131	151	113	33		
<del>75</del>	214	276	52	50		
	326	162	131	30		
	34	181	116	41		
	75	310	79	48		
	401	266	119			
	28	251	173			
	222	193	<del>173</del>			
	41	197	<del>173</del>			
	222	410	<del>173</del>			
	29	188	<del>173</del>			
	338	30	<del>173</del>			
		158	<del>173</del>			
		119				

APR MAY JUN JUL AUG SEPT OCT

138	TOTAL VOL.	774	4201	6376	1621	521	219	27
251	MEAN	86.0	200.0	212.5	108.1	40.1	54.8	27
410	RANGE	28-173	29-401	30-410	18-176	26-57	34-73	—
303	NO. LIZARDS	9	21	30	15	13	4	1
176								
173								
111								



# Dirosaurus dorsalis Testis Volumes (115mm S-V)

1961

## Right Testis

APR	MAY	JUN	JUL	AUG	SEPT	OCT
34	290	213	177	64	48	23
141	172	164	23	54	51	
41	255	280	141	47	51	
21	428	176	197	42	46	
21	293	141	26	24		
60	237	223	107	35		
161	189	231	232	47		
151	50	214	30	21		
79	131	197	223	30		
	141	350	59	65		
	266	169	151	51		
	295	209	113	42		
	21	368	62	48		
	91	266	112			
	495	222	154			
	51	197				
	415	213				
	36	325				
	315	255				
	30	31				
	278	232				

161  
181  
153

APR MAY JUN JUL AUG SEPT OCT

230	TOTAL VOL	709	4479	6502	1807	570	196	23
407	MEAN	78.8	213.3	216.7	120.5	43.8	49.0	23
235	RANGE	21-161	21-495	31-407	23-232	21-65	46-51	-
161	NO. LIZARDS	9	21	30	15	13	4	1
193								
105								

Year	1970	1971	1972	1973	1974	1975
Jan	100	100	100	100	100	100
Feb	100	100	100	100	100	100
Mar	100	100	100	100	100	100
Apr	100	100	100	100	100	100
May	100	100	100	100	100	100
Jun	100	100	100	100	100	100
Jul	100	100	100	100	100	100
Aug	100	100	100	100	100	100
Sep	100	100	100	100	100	100
Oct	100	100	100	100	100	100
Nov	100	100	100	100	100	100
Dec	100	100	100	100	100	100
Total	1200	1200	1200	1200	1200	1200

The following table shows the results of the survey conducted in the year 1975. The data is presented in a tabular format, with the first column representing the month and the subsequent columns representing the years 1970 through 1975. The values in the table represent the percentage of respondents who chose each option for each month.

The survey was conducted in the year 1975, and the results are presented in the table above. The data shows that the majority of respondents chose the same option for each month, with the percentage of respondents choosing that option remaining relatively stable over time.

The survey was conducted in the year 1975, and the results are presented in the table above. The data shows that the majority of respondents chose the same option for each month, with the percentage of respondents choosing that option remaining relatively stable over time.



Dipsosaurus dorsalis Testis Volumes (115<sup>+</sup> mm S-V)

1962

Left Testis

MAR	APR	MAY	JUN	JUL	<del>SEPT</del> AUG	<del>SEPT</del> SEPT
105	351	173	185	141	25	32
119	217	173	94	131	87	52
113	320	82	232	184	151	45
133	162	38	47	141	128	45
110	298	62	286	73	106	
203	388	102	280	167	75	
	303	341	209	228		
	280	181	232	151		
	193	303	227	179		
	69	298	324	193		
	64	320	151	30		
	8	362	298	71		
	214	402	96	34		
	73	407	151	36		
	113	309		165		
	266	328		236		
	324			65		
	398			162		
	548					
	222					
	398					
	351					

TOTAL VOL. 783 5560 3881 2812 2387 572 174

MEAN 130.5 252.7 242.6 200.9 132.6 95.3 43.5

RANGE 105-203 8-548 38-407 94-324 30-236 25-151 32-52

NO. LIZARDS 6 22 16 14 18 6 4



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Year	Jan	Feb	Mar	Apr	May	June
1910	12	15	18	22	25	28
1911	10	13	16	20	23	26
1912	8	11	14	18	21	24
1913	6	9	12	16	19	22
1914	4	7	10	14	17	20
1915	2	5	8	12	15	18
1916	1	4	7	11	14	17
1917	1	4	7	11	14	17
1918	1	4	7	11	14	17
1919	1	4	7	11	14	17
1920	1	4	7	11	14	17
1921	1	4	7	11	14	17
1922	1	4	7	11	14	17
1923	1	4	7	11	14	17
1924	1	4	7	11	14	17
1925	1	4	7	11	14	17
1926	1	4	7	11	14	17
1927	1	4	7	11	14	17
1928	1	4	7	11	14	17
1929	1	4	7	11	14	17
1930	1	4	7	11	14	17
1931	1	4	7	11	14	17
1932	1	4	7	11	14	17
1933	1	4	7	11	14	17
1934	1	4	7	11	14	17
1935	1	4	7	11	14	17
1936	1	4	7	11	14	17
1937	1	4	7	11	14	17
1938	1	4	7	11	14	17
1939	1	4	7	11	14	17
1940	1	4	7	11	14	17
1941	1	4	7	11	14	17
1942	1	4	7	11	14	17
1943	1	4	7	11	14	17
1944	1	4	7	11	14	17
1945	1	4	7	11	14	17
1946	1	4	7	11	14	17
1947	1	4	7	11	14	17
1948	1	4	7	11	14	17
1949	1	4	7	11	14	17
1950	1	4	7	11	14	17
1951	1	4	7	11	14	17
1952	1	4	7	11	14	17
1953	1	4	7	11	14	17
1954	1	4	7	11	14	17
1955	1	4	7	11	14	17
1956	1	4	7	11	14	17
1957	1	4	7	11	14	17
1958	1	4	7	11	14	17
1959	1	4	7	11	14	17
1960	1	4	7	11	14	17
1961	1	4	7	11	14	17
1962	1	4	7	11	14	17
1963	1	4	7	11	14	17
1964	1	4	7	11	14	17
1965	1	4	7	11	14	17
1966	1	4	7	11	14	17
1967	1	4	7	11	14	17
1968	1	4	7	11	14	17
1969	1	4	7	11	14	17
1970	1	4	7	11	14	17
1971	1	4	7	11	14	17
1972	1	4	7	11	14	17
1973	1	4	7	11	14	17
1974	1	4	7	11	14	17
1975	1	4	7	11	14	17
1976	1	4	7	11	14	17
1977	1	4	7	11	14	17
1978	1	4	7	11	14	17
1979	1	4	7	11	14	17
1980	1	4	7	11	14	17
1981	1	4	7	11	14	17
1982	1	4	7	11	14	17
1983	1	4	7	11	14	17
1984	1	4	7	11	14	17
1985	1	4	7	11	14	17
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1996	1	4	7	11	14	17
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1999	1	4	7	11	14	17
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2001	1	4	7	11	14	17
2002	1	4	7	11	14	17
2003	1	4	7	11	14	17
2004	1	4	7	11	14	17
2005	1	4	7	11	14	17
2006	1	4	7	11	14	17
2007	1	4	7	11	14	17
2008	1	4	7	11	14	17
2009	1	4	7	11	14	17
2010	1	4	7	11	14	17
2011	1	4	7	11	14	17
2012	1	4	7	11	14	17
2013	1	4	7	11	14	17
2014	1	4	7	11	14	17
2015	1	4	7	11	14	17
2016	1	4	7	11	14	17
2017	1	4	7	11	14	17
2018	1	4	7	11	14	17
2019	1	4	7	11	14	17
2020	1	4	7	11	14	17
2021	1	4	7	11	14	17
2022	1	4	7	11	14	17
2023	1	4	7	11	14	17
2024	1	4	7	11	14	17
2025	1	4	7	11	14	17
2026	1	4	7	11	14	17
2027	1	4	7	11	14	17
2028	1	4	7	11	14	17
2029	1	4	7	11	14	17
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2061	1	4	7	11	14	17
2062	1	4	7	11	14	17
2063	1	4	7	11	14	17
2064	1	4	7	11	14	17
2065	1	4	7	11	14	17
2066	1	4	7	11	14	17
2067	1	4	7	11	14	17
2068	1	4	7	11	14	17
2069	1	4	7	11	14	17
2070	1	4	7	11	14	17
2071	1	4	7	11	14	17
2072	1	4	7	11	14	17
2073	1	4	7	11	14	17
2074	1	4	7	11	14	17
2075	1	4	7	11	14	17
2076	1	4	7	11	14	17
2077	1	4	7	11	14	17
2078	1	4	7	11	14	17
2079	1	4	7	11	14	17
2080	1	4	7	11	14	17
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2093	1	4	7	11	14	17
2094	1	4	7	11	14	17
2095	1	4	7	11	14	17
2096	1	4	7	11	14	17
2097	1	4	7	11	14	17
2098	1	4	7	11	14	17
2099	1	4	7	11	14	17
2100	1	4	7	11	14	17

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Dipsosaurus dorsalis Testis Volumes (115<sup>+</sup> mm S-V)

1962

Right Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT
118	307	169	181	118	34	37
116	210	181	91	130	83	36
116	352	79	282	108	246	43
138	217	46	26	157	108	41
130	381	60	300	39	112	
133	485	83	280	172	73	
	309	282	214	223		
	331	293	250	197		
	266	303	275	190		
	88	285	344	150		
	55	355	203	36		
	10	360	324	97		
	241	479	89	39		
	141	439	161	27		
	137	415		162		
	192	343		193		
	422			77		
	456			161		
	525					
	183					
	420					
	486					

TOTAL VOL 751 6214 41723020 2276 656 157

MEAN 125.2 282.5 260.8 215.7 126.4 109.3 39.3

RANGE 116-138 10-~~525~~ 46-479 26-344 27-223 34-246 36-43

NO. LIZARDS 6 22 16 14 18 6 4

1. 1000 1000 1000 1000 1000 1000  
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Dipsosaurus dorsalis

Testis ~~biology~~ volumes (115<sup>+</sup>mm-S-V).

1963  
Left Testis

Apr	May
241	557
45	499
308	282
251	

$\Sigma X$  845 1338

$N$  4 3

$\bar{X}$  211.2 446.3

Range 45-308 282-557

Right Testis

Apr	May
183	559
39	696
362	349
225	

$\Sigma X$  809 1603

$N$  4 3

$\bar{X}$  202.2 534.3

Range 39-362 349-696



Dipsosaurus dorsalis Adults (115+ mm S-V)

⑮  
Left testis anterior

⑯  
Right testis anterior

⑰  
Testes even

|||||  
|||

|||||





Dipsosaurus dorsalis Immature (< 115 mm S-V)

(15)

Left testis anterior

(16)

Right testis anterior

mm

(17)

Testes even

mm



Testis Volumes, *Dipsosaurus dorsalis* Adults (115+ mm S-V)

Left testis larger


Right testis larger


Testes same size

|||||





Testis Volumes, *Dipsosaurus dorsalis* Immature (< 115 mm S-V)

Left testis larger

|||||

Right testis larger

|||||

Testes same size

|||



Dipsosaurus dorsalis Adult ♂ (115+ mm S-V)

	B	B1	B2	B3
Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep		-		
Oct				
Nov				
Dec				





Dipsosaurus dorsalis Immature ♂

	B	B1	B2	B3
Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				



Dipsosaurus dorsalis Adult ♀ (110<sup>+</sup> mm. S-V)

(19) LEFT OVARY ANTERIOR	(18) RIGHT OVARY ANTERIOR	(20) OVARIES EVEN
/		



## EGGS IN OVIDUCT

RIGHT

[illegible]



1900

1900

(

CHICAGO

(

(

Dipsosaurus dorsalis  
SIZE OF EGGS IN OVIDUCT

LEFT

RIGHT

LIZARD NO.

SIZE IN mm.

255 32.4 x 15.6 31.0 x 16.1

294 26.6 x 14.4 25.8 x 14.3

329 25.0 x 11.5

513 26.4 x 16.4 26.2 x 15.6

624 24.8 x 16.1 27.1 x 15.1

640 24.9 x 14.7

666 24.8 x 14.8 25.5 x 15.5

676 22.6 x 13.8 25.3 x 14.0

$N = 14$

$\Sigma X = 368.4 \times 207.9$

$\bar{X} = 26.3 \times 14.8 \text{ mm}$

SIZE IN mm.

31.7 x 16.6 31.6 x 15.1

25.2 x 19.1 28.5 x 12.8

23.3 x 12.6 21.8 x 13.0

29.5 x 14.2

25.0 x 15.5 26.6 x 16.8 27.0 x 15.7

22.4 x 16.2 22.3 x 16.0

27.8 x 14.4

27.1 x 14.8

$N = 14$

$\Sigma X = 369.8 \times 212.8$

$\bar{X} = 26.4 \times 15.2 \text{ mm}$

$N = 28$

$\Sigma X = 738.2 \times 420.7$

$\bar{X} = 26.4 \times 15.0 \text{ mm}$

Range = 21.8 x 11.5 mm to 32.4 x 19.1 mm

1912

1912

1. The first part of the book is devoted to a general survey of the history of the United States from the discovery of the continent to the present time. The author discusses the various stages of the country's development, from the early years of exploration and settlement to the present day.

2. The second part of the book is devoted to a detailed study of the political and social conditions of the United States during the period of the American Revolution. The author examines the causes and consequences of the Revolution, and discusses the role of the various states and the federal government.

3. The third part of the book is devoted to a study of the economic and social conditions of the United States during the period of the American Civil War. The author discusses the causes and consequences of the war, and examines the role of the various states and the federal government.

4. The fourth part of the book is devoted to a study of the economic and social conditions of the United States during the period of the American Reconstruction. The author discusses the causes and consequences of the Reconstruction, and examines the role of the various states and the federal government.

THE UNIVERSITY OF CHICAGO  
LIBRARY

Dipsosaurus dorsalis Adult (110+mm S-V)

#eggs

Left ovary

Right ovary

1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		





Dipsosaurus dorsalis Immature

# eggs	Left ovary	Right ovary
1		
2	I	
3		I
4	I	I
5	III	III
6	III	III
7	III	III
8	III/IV	III/III
9	III/III	III/III
10	III	III
11	II	I
12	III	II
13		I
14		I
15	I	
16		
17		
18		
19		
20		



Dipsosaurus dorsalis Adult ♀ (110+mm S-V)

B	B1	B2	B3
Jan			
Feb			
Mar II			
Apr <del>IIII</del> II	IIII	II	III
May IIII	I	III	I
Jun IIII		I	
Jul <del>IIII</del> I			
Aug <del>IIII</del> II			
Sep I	I		
Oct			
Nov			
Dec			



Dipsosaurus dorsalis Immature

B

B1

B2

B3

Jan

Feb

Mar

Apr

May

Jun 1

Jul 1~~th~~

Aug 1

Sep 1

Oct

Nov

Dec





Dipsosaurus dorsalis  
FAT BODIES  
⑦

MONTH	ADULT		IMMATURE	
	♂ (115 <sup>+</sup> mm)	♀ (110 <sup>+</sup> mm)	♂	♀
JAN.				
FEB.				
MAR.				
APR.			/	/
MAY			/	
JUN.			/	
JUL.		/	/	/
AUG.				
SEPT.				
OCT.				
NOV.				
DEC.				



PHYRINOSOMA  
YCAULT

PHRYNOSOMA  
M'CALLI



PHRYNOSOMA M'CALLI

Potentially Breeding ♂ ♂ 65 mm (S-V)

Smallest ♂ = mm.  
Largest ♂ = mm.

Number (8)	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
1959-64	0	8	13	9	20	15	1	0
1967	0	7	17	13	7	4	—	—
Total	0	15	30	22	27	19	1	0
+1968		18						

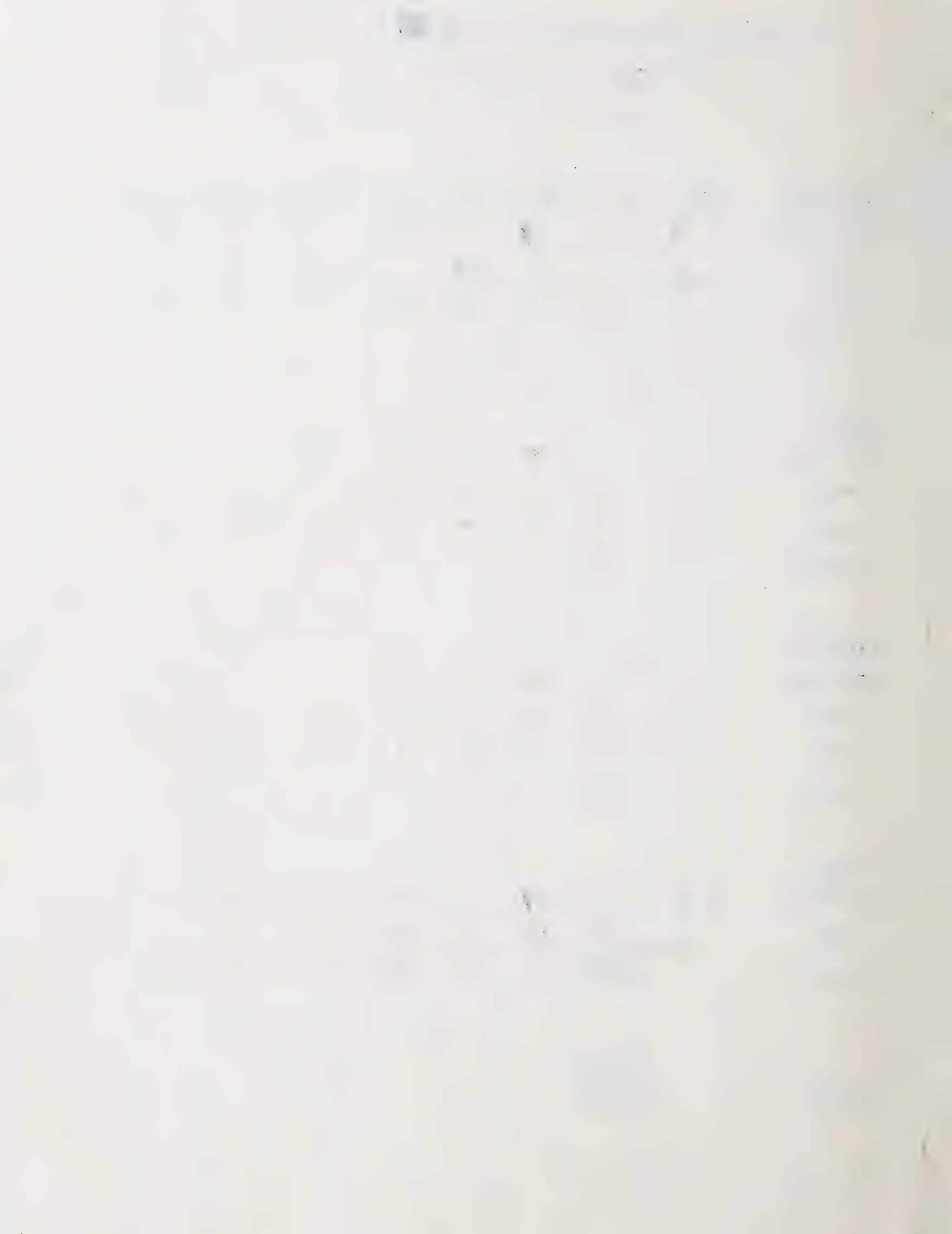
No (8)	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
1959-64	1	4	5	3	1	0	1	3
1967	0	5	7	1	0	0	—	—
Total	1	9	12	4	1	0	1	3
+1968		0						

Total #	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Total.
1959-64	1	12	18	12	21	15	2	3	84
1967	0	12	24	14	7	4	—	—	61
Total	1	24	42	26	28	19	2	3	145
+1968		27							172

% (8)	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
1959-64	0	67	71	75	95	100	50	0
1967	0	58	71	93	100	100	—	—
Total	0	62	71	85	97	100	50	0

+1968

67



# PHRYNOSOMA M. CALLI

(1959-1964) Total Collected (Dissected)

<u>MONTH</u>	<u>IND</u>			<u>AD</u>			
	♂	♀	TOTAL	♂	♀	TOTAL	
JAN	-	-	-	-	-	-	
FEB	-	-	-	-	-	-	
MAR	1	1	2	1	-	1	
APR	5	4	9	12	13	25	
MAY	3	-	3	18	14	32	
JUN	2	1	3	12	17	29	
JUL	-	-	-	31	29	50	
AUG	-	-	-	15	29	44	
SEP	3	-	3	2	12	14	
OCT	1	3	3	3	2	5	
NOV	-	-	-	-	-	-	
DEC	-	-	-	-	-	-	
	15	9	24	84	116	200	TOTALS

	<u>1967</u>			<u>1968</u>			
	♂	♀	TOTAL	♂	♀	TOTAL	
April	-	-	-	12	6	18	
May	-	-	-	24	15	39	
June	1	0	1	14	16	30	
July	0	0	0	7	2	9	
Aug	0	0	0	4	2	6	
Sept.	0	0	0	0	0	0	
Oct.	0	0	0	0	0	0	
	1	0	1	61	41	102	

1959-1967

Totals

16 9 25

145 157 302

Grand Total

327

1968

145

30

175



63/23  
PHRYNOSOMA M'CALLI REPRODUCTION CHART

MALE

ENLARGED TESTIS (> 75 mm<sup>3</sup>)

1959 7/20 - 7/21

1960 5/9 - 8/1

1961 4/15 - 8/12

1962 4/14 - 8/11

4/14 8/13

CONVOLUTED EPIDIDYMIS

1959 7/20 - 7/21

1960 5/9 - 8/1

1961 4/15 - 8/12

1962 4/14 - 8/11

4/14 8/13

ACTIVE SPERM

1959 7/20 - 7/21

1960 5/9 - 8/1

1961 4/15 - 8/12

1962 4/14 - 8/11

4/14 8/13

FEMALE

OVA ACCUMULATED YOLK

1959 7/21 - 8/18

1960 5/9 - 8/19

1961 5/14 - 8/15

1962 4/14 - 8/12

4/14 - 8/17 (6+)





P. M. (CONT.)

ENLARGED EGGS (> 4 mm)

1959 8/18  
1960 5/9 - 8/1  
1961 5/14 - 8/12  
1962 4/14 - 8/12  
4/14 - 8/19 (67)

CONVOLUTED OVIDUCTS

1959 7/21 - 8/18  
1960 4/14 - 7/7  
1961 4/16 - 7/13  
1962 4/14 - 7/15  
4/14 - 7/15

EGGS IN OVIDUCTS

1959 —  
1960 5/9 - 6/9  
1961 7/22 - 7/13  
1962 7/11 - 9/6 1964 - 9/4  
5/9 - 7/13 OK

CORPORA LUTEA

1959 —  
1960 5/1 - 5/9  
1961 7/22 - 7/13  
1962 7/11 - 7/15  
5/9 - 7/15



# Phrynosoma m'calli Testis Volumes (65<sup>+</sup>mm S-V)

1959

Left Testis

JUN JUL

68 102

45 148

227

~~Left~~ Right Testis

JUN JUL

36 91

42 131

228

TOTAL VOL 340 250

MEAN 113.3 125.0

RANGE 45-227 102-148

NO. LIZARDS 3 2

TOTAL VOL

306 222

MEAN

102.0 111.0

RANGE

36-228 91-131

NO. LIZARDS

3 2

~~Left~~ Testis 1960

MAY JUN JUL AUG

127 280 193 209

189

Right Testis

MAY JUN JUL AUG

131 237 214 189

158

TOTAL VOL 316 280 193 209

MEAN 158.0 280 193 209

RANGE 127-189 - - -

NO. LIZARDS 2 1 1 1

TOTAL VOL

289 237 214 189

MEAN

144.5

~~TOTAL VOL~~  
RANGE

131-158 - - -

NO. LIZARDS

2 1 1 1

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Phrynosoma m'calli Testis Volumes (65<sup>+</sup> mm SL)

1961

Left Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
44	97	63	75	223	119	13	29
	402	173	124	196	128		17
	105		93	~	141		
	65		79	113	228		
	201		119	208			
	94		84	213			
	237		33	41			
				236			
				141			
				201			
				214			
				330			
				197			
				197			

TOTAL VOL.	44	1201	236	607	2510	616	13	46
MEAN	44	171.6	118.0	86.7	193.1	154.0	13	23.0
RANGE	—	65-402	63-173	33-124	41-330	119-228	—	17-29
NO. LIZARDS	1	7	2	7	13	4	1	2



# Phrynosoma m'calli Testis Volumes (65 mm S-V)

1961

## Right Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
34	107	72	61	144	131	19	13
	91	150	119	209	97		6
	105		97	214	162		
	69		67	96	205		
	197		93	205			
	80		65	181			
	185		31	47			
				312			
				125			
				188			
				151			
				256			
				113			
				193			

TOTAL VOL	34	834	222	533	2434	595	19	19
MEAN	34	119.1	111.0	76.1	173.9	148.8	19	9.5
RANGE	—	69-197	72-150	31-119	47-256	97-205	—	6-13
NO. LIZARDS	1	7	2	7	<sup>14</sup> <del>10</del>	4	1	2

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1	10	10	10	10	10	10	10
2	10	10	10	10	10	10	10
3	10	10	10	10	10	10	10
4	10	10	10	10	10	10	10
5	10	10	10	10	10	10	10
6	10	10	10	10	10	10	10
7	10	10	10	10	10	10	10
8	10	10	10	10	10	10	10
9	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
11	10	10	10	10	10	10	10
12	10	10	10	10	10	10	10
13	10	10	10	10	10	10	10
14	10	10	10	10	10	10	10
15	10	10	10	10	10	10	10
16	10	10	10	10	10	10	10
17	10	10	10	10	10	10	10
18	10	10	10	10	10	10	10
19	10	10	10	10	10	10	10
20	10	10	10	10	10	10	10
21	10	10	10	10	10	10	10
22	10	10	10	10	10	10	10
23	10	10	10	10	10	10	10
24	10	10	10	10	10	10	10
25	10	10	10	10	10	10	10
26	10	10	10	10	10	10	10
27	10	10	10	10	10	10	10
28	10	10	10	10	10	10	10
29	10	10	10	10	10	10	10
30	10	10	10	10	10	10	10
31	10	10	10	10	10	10	10
32	10	10	10	10	10	10	10
33	10	10	10	10	10	10	10
34	10	10	10	10	10	10	10
35	10	10	10	10	10	10	10
36	10	10	10	10	10	10	10
37	10	10	10	10	10	10	10
38	10	10	10	10	10	10	10
39	10	10	10	10	10	10	10
40	10	10	10	10	10	10	10
41	10	10	10	10	10	10	10
42	10	10	10	10	10	10	10
43	10	10	10	10	10	10	10
44	10	10	10	10	10	10	10
45	10	10	10	10	10	10	10
46	10	10	10	10	10	10	10
47	10	10	10	10	10	10	10
48	10	10	10	10	10	10	10
49	10	10	10	10	10	10	10
50	10	10	10	10	10	10	10

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Phrynosoma m'calli Testis Volumes (65mm S-V)

1962

Left Testis

APR	MAY	JUN	JUL	AUG
246	41	237	251	141
315	97	128	173	246
116	99		134	147
169	150			205
	48			185
	87			166
	131			128
	193			105
	205			

TOTAL VOL	846	1051	365	558	1323
MEAN	211.5	116.8	182.5	186.0	165.4
RANGE	116-315	41-205	128-237	134-251	105-246
NO. LIZARDS	4	9	2	3	8

Right Testis

APR	MAY	JUN	JUL	AUG
263	30	232	214	131
266	105	138	154	242
121	91		138	158
~	138			173
	61			158
	65			138
	134			113
	184			105
	150			

TOTAL VOL	650	958	370	506	1218
MEAN	216.7	106.4	185.0	168.7	152.3
RANGE	121-266	30-184	138-232	138-214	105-242
NO. LIZARDS	3	9	2	3	8





*Phrynosoma m'calli*. (65<sup>+</sup>mm, S.V) Testis Vol.  
1963

Left Testis

Apr. May  
— 141  
104 105

$\Sigma X$  104 246

$N$  1 2

$\bar{X}$  104 123

Range 104 105-141

Right testis

Apr. May.  
104 138  
24

$\Sigma X$  104 162

$N$  1 2

$\bar{X}$  104 81

Range — 24-38

1964

Aug Oct  
147 6

Left  
Testis

Right  
Testis

121 4

1967

Left Testis

Apr	May	May	June	July	Aug
151	110	42	124	223	162
131	73	222	131	173	192
141	193	113	151	162	210
102	292	95	141	210	104
63	97	89	185	266	
122	169	120	185	113	
154	67	53	269	87	
162	110	105	237		
128	69	162	105		
120	24	354	63		
69	97	141	61		
57	134	21	128		

Right Testis

Apr May

128

173

96

1967

$\Sigma X$   $N$

1968

Apr.

251

320

141

Apr. 1400 12

May 2931 24

June 2059 14

July 1234 7

Aug. 668 4



464-744  
Testis Volumes, *Phrynosoma m'calli* Adults (65+mm S-U)

Left testis larger

|||||

Right testis larger

|||||

Testes same size

||





Testis Volumes, *Phrynosoma m'calli* Immature (<65 mm S-V)

Left testis larger

N

Right testis larger

TH

Testes same size

II



Phrynosoma m'calli Adult (65+ mm S-U)

(15)

Left testis anterior

I

(16)

Right testis anterior

|||||

(17)

Testes even

|||||



Phrynosoma m'calli Immature (< 65 mm S-V)

(15)

Left testis anterior

I

(16)

Right testis anterior

III

(17)

Testes even

I





June 1968

Phrynosoma m'calli Adult ♀ (65<sup>+</sup> mm. S-V)

①9

LEFT OVARY ANTERIOR

||||

①8

RIGHT OVARY ANTERIOR

|||||

②0

OVARIES EVEN

|||||



Phrynosoma m'calli  
EGGS IN OVIDUCT

LEFT

RIGHT

NO. of EGGS	0	1	2	3	4	5	6	7	8	9	10		0	1	2	3	4	5	6	7	8	9	10	
NO. of TAG																								
21			✓												✓									
23			✓													✓								
95			✓														✓							
98				✓												✓								
106				✓													✓							
109				✓												✓								
116					✓											✓								
118			✓														✓							
126			✓													✓								
130			✓													✓								
171			✓													✓								
214			✓													✓								
315				✓												✓								





Phrynosoma m'calli  
SIZE OF EGGS IN OVIDUCT

LEFT		RIGHT	
LIZARD NO.	SIZE IN mm.		SIZE IN mm.
21	17.5 x 10.0; 17.1 x 10.4		16.5 x 10.2; 17.8 x 9.5
23	18.8 x 11.9; 18.4 x 11.6		19.2 x 12.1; 18.7 x 12.1; 20.0 x 12.3
95	15.0 x 9.1; 16.4 x 10.5		17.2 x 9.3; 15.0 x 10.0; 15.3 x 10.2; 16.1 x 9.0
98	14.6 x 10.5; 14.6 x 10.4; 14.5 x 11.2		15.1 x 10.7; 14.9 x 10.6; 14.8 x 9.0
106	14.5 x 10.9; 14.9 x 9.9; 15.0 x 10.0		15.5 x 10.9; 14.8 x 10.0; 14.6 x 11.1; 14.0 x 10.0
109	15.8 x 10.6; 14.8 x 10.4; 14.6 x 10.8		14.3 x 10.6; 15.3 x 10.9; 16.4 x 11.0
116	15.4 x 11.2; 14.4 x 10.3; 13.1 x 9.4; 13.6 x 10.3		13.3 x 10.5; 13.7 x 10.4; 14.4 x 10.3
118	16.9 x 10.8; 17.8 x 11.0		16.4 x 10.0; 16.6 x 10.0; 15.3 x 9.3; 16.4 x 10.7
126	16.6 x 10.8; 14.2 x 11.9		17.7 x 10.5; 15.7 x 10.4
130	15.9 x 10.4; 15.4 x 10.0		16.3 x 9.8; 17.4 x 9.4
171	17.2 x 11.3; 17.4 x 11.5		17.3 x 12.0; 18.2 x 11.7
214	17.3 x 11.2; 18.3 x 11.0		17.2 x 10.9; 17.4 x 10.9
N = 29		N = 34	
$\Sigma X = 460.0 \times 309.3$		$\Sigma X = 548.8 \times 356.3$	
$\bar{X} = 15.9 \times 10.7 \text{ mm}$		$\bar{X} = 16.1 \times 10.5 \text{ mm}$	
1967 Lizard Nos.			
315	16.1 x 9.7; 17.5 x 9.0; 17.0 x 10.5		17.8 x 11.4; 19.4 x 11.0
N = 63		N = 63	
$\Sigma X = 1008.8 \times 665.6$		$\Sigma X = 1008.8 \times 665.6$	
$\bar{X} = 16.0 \times 10.6 \text{ mm}$		$\bar{X} = 16.0 \times 10.6 \text{ mm}$	
Range = 13.1 x 9.0 mm To 20.0 x 12.3 mm		Range = 13.1 x 9.0 mm To 20.0 x 12.3 mm	



1953

Phrynosoma m'calli

OVA WITH YOLK

LEFT OVARY

RIGHT OVARY

NUMBER OF OVA

1 III

2 ~~IIIIIIIIII~~ IIII

3 ~~IIIIIIIIII~~ IIII

4 ~~IIIIIIII~~ IIII

5 III

6

7

8

9

10

I

~~IIIIIIIIII~~ IIII

~~IIIIIIII~~ IIII

~~IIIIIIII~~ IIII



Phrynosoma m'calli  
FAT BODIES

⑦

MONTH NUMBER	ADULT (65+mm)		IMMATURE	
	♂	♀	♂	♀
JAN.				
FEB.				
MAR.				
APR. 11				
MAY 11				
JUN. 11				
JUL. 11				
AUG.				
SEPT.				
OCT.				
NOV.				
DEC.				





Phrynosoma m'calli Adult (65+ mm S-V)  
(No. Eggs in ovary)

Left ovary	Right ovary
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	



Phrynosoma m'calli Immature  
(No. Eggs in Ovary)

Left ovary	Right ovary
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	





PHYRINOSOMA  
FLUTRINOS

PHRYNOSOMA  
P. ...

# Potentially Breeding *Phrynosoma platyrhinos* ♂♂ (65 mm, 5-V)

(smallest ♀ = 62 mm)  
(largest ♂ = 96 " )

## Totals, 1958-1961

Date	#♂	No♀	Total	%♂
Sept. '58	0	1	1	0
Oct.	0	1	1	0
Apr. '59	1	0	1	100
May			0	
June	2	1	3	67
July			0	
Aug.	2	0	2	100
Sept.	0	1	1	0
Mar. '60	0	3	3	0
Apr.	10	0	10	100
May	5	1	6	83
June	3	0	3	100
July	4	0	4	100
Aug.	2	1	3	67
Apr. '61	1	0	1	100
May			0	
June	2	0	2	100
July	1	0	1	100
Aug.			0	
Sept.	1	0	1	100
Apr. '62	2	0	2	100
May	5	1	6	83
May '63	0	2	2	0
Jun '63	1	1	2	50
Sep.	1	0	1	100
Mar. '64	1	0	1	100
Apr	5	0	5	100

Month	#♂	No♀	Total	%♂
Mar.	0	3	3	0
Apr.	12	0	12	100
May	5	1	6	83
June	7	1	8	88
July	5	0	5	100
Aug.	4	1	5	80
Sept.	1	2	3	33
Oct.	0	1	1	0
Total			43	

## Totals, 1958-1963

Month	#♂	No♀	Total	%♂
Mar.	0	3	3	0
Apr.	12	0	12	100
May.	10	4	14	71
Jun	8	2	10	80
Jul.	5	0	5	100
Aug.	4	1	5	80
Sep.	2	2	4	50
Oct.	0	1	1	0
			54	



Phrynosoma platyrhinas (65+mm, SV)

Left Testis Volume - Summary 1958-1963

Month	$\Sigma X$	N	$\bar{X}$
Mar	867	3	289.0
Apr.	5437	19	286.2
May	2165	11	196.8
Jun	<del>1433</del> <del>1433</del>	10	143.3
Jul	1004	5	200.8
Aug	581	5	116.2
Sep	111	4	27.8
Oct.	45	1	45





Phrynosoma platyrhinos - Testis volume (65<sup>+</sup>mm-SV)  
1958

Left

Sep Oct

~~22.57~~ ~~45.16~~

23 45

$\Sigma X$  23 45

$\bar{X}$  23 45

$N$  1 1

Range — —

Right

Sep Oct

~~20.45~~

20 45

$\Sigma X$  20 45

$\bar{X}$  20 45

$N$  1 1

Range — —



*Phrynosoma platyrhinos* - Testis volume (65+mm S-V)  
1959

Left

Apr.	May	Jun	July	Aug	Sep.
8	—	19	—	113	7
97		36		171	
		68			

$\Sigma X$	105	—	123	—	284	7
$\bar{X}$	52.5	—	41.0	—	142	7
N	2	—	3	—	2	1
Range	8-97	—	19-68	—	113-171	—

Right

Apr	May	Jun	July	Aug	Sep.
13	—	16	—	110	5
60		36		158	
		75			

$\Sigma X$	73	—	127	—	268	5
$\bar{X}$	36.5	—	42.3	—	134	5
N	2	—	3	—	2	1
Range	13-60	—	16-75	—	110-158	—





*Phrynosoma platyrhinos* - Testis volumes (65<sup>+</sup>mm-S-U)  
1960

Left

March	Apr	May	Jun	Jul	Aug	\$
400	173	217	261	232	32	
282	479	34	309	169	85	
185	235	251	343	265	180	
	233			188		

381

443

450

320

582

208

138

242

261

429

$\Sigma X$	867	4574	502	913	854	297
$\bar{X}$	289.0	<del>326.7</del>	167.3	304.3	213.5	99.0
N	3	14	3	3	4	3
Range	185-400	138-582	34-251	261-343	169-265	32-180

Right

Mar	Apr	May	Jun	Jul	Aug
264	209	296	188	588	43
309	421	24	251	184	101
181	197	209	326	242	151
	332			166	
	356				
	326				
	309				
	448				
	165				
	99				
	256				
	280				
	381				

$\Sigma X$	754	3779	529	765	1180	295
$\bar{X}$	251.3	290.7	176.3	255.0	295.0	98.3
N	3	13	3	3	4	3
Range	181-309	99-448	24-296	188-326	166-588	43-151



Phrynosoma platyrhinos - Testis volume (65<sup>+</sup>mm, S-V)  
1961

Left

Apr	May	Jun	Jul	Aug	Sep
141	—	128 84	150	—	34

$\Sigma X$	141	—	212	150	—	34
$\bar{X}$	141	—	106	150	—	34
N	1	—	2	1	—	1
Range	—	—	24-128	—	—	—

Right

Apr	May	Jun	Jul	Aug	Sep
131	—	104 89	118	—	34

$\Sigma X$	131	—	193	118	—	34
$\bar{X}$	131	—	96.5	118	—	34
N	1	—	2	1	—	1
Range	—	—	89-104	—	—	—



Phrynosoma platyrhinos - Testis volume (65<sup>+</sup>mm, 5-V)  
1962

Left

Apr	May
280	280
337	205
<del>280</del>	251
<del>205</del>	407
	401
	11

$\Sigma X$	617	1555
$\bar{X}$	308.5	259.2
N	2	6
Range	280-337	11-407

Right

Apr	May
256	237
347	185
	196
	320
	266
	16

$\Sigma X$	603	1220
$\bar{X}$	<del>301.5</del>	203.3
N	2	6
Range	256-347	16-320





*Phrynosoma platyrhinos* - Testis volume (65<sup>+</sup>mm, S-U)  
1963

Left

May	Jun	—	Sep
52	151	—	47
56	34		

$\Sigma X$	108	185		47
$\bar{X}$	54	92.5		47
N	2	2		1
range	52-56	34-151	—	—

Right

May	Jun	—	Sep
67	125		45
57	24		

$\Sigma X$	124	149		45
$\bar{X}$	62	74.5		45
N	2	2		1
range	57-67	24-125	—	—



Testis Volumes, *Phrynosoma platyrhinos* Adults (65+ mm S-V)

Left testis larger

|||||

Right testis larger

||||

Testes same size

||





Testis Volumes, *Phrynosoma platyrhinos* Immature (< 65 mm SVL)

Left testis larger

||

Right testis larger

||

Testes same size



Phrynosoma platyrhinos Adult (65+ mm S-V)

(15)

Left testis anterior

I

(16)

Right testis anterior

|||||

(17)

Testes even

|||

# Project 1: Introduction to Data Science

Goal: To understand the basics of data science and its applications in various fields.

Topic	Sub-Topic	Key Concepts	Applications
Data Science	What is Data Science?	Interdisciplinary field combining statistics, computer science, and domain knowledge.	Business, Healthcare, Finance, Marketing.
	Data Collection	Surveys, Experiments, Observational Studies.	Market Research, Clinical Trials, Social Media Analysis.
	Data Cleaning	Handling missing values, removing duplicates, correcting errors.	Improving data quality for analysis.
	Data Visualization	Charts, Graphs, Dashboards.	Communicating findings to stakeholders.
Statistics	Descriptive Statistics	Mean, Median, Mode, Standard Deviation.	Summarizing data.
	Inferential Statistics	Hypothesis Testing, Confidence Intervals.	Drawing conclusions from data.
	Regression Analysis	Linear Regression, Logistic Regression.	Predicting outcomes based on input variables.
	Bayesian Statistics	Bayes' Theorem, Probabilistic Models.	Decision making under uncertainty.
Machine Learning	Supervised Learning	Classification, Regression.	Spam detection, Image recognition.
	Unsupervised Learning	Clustering, Association.	Customer segmentation, Recommendation systems.
	Deep Learning	Neural Networks, Convolutional Networks.	Image classification, Natural Language Processing.
	Reinforcement Learning	Q-Learning, Policy Gradient.	Game playing, Robotics.

Phrynosoma platyrhinos Immature (< 65 mm SVL)

⑮

Left testis anterior

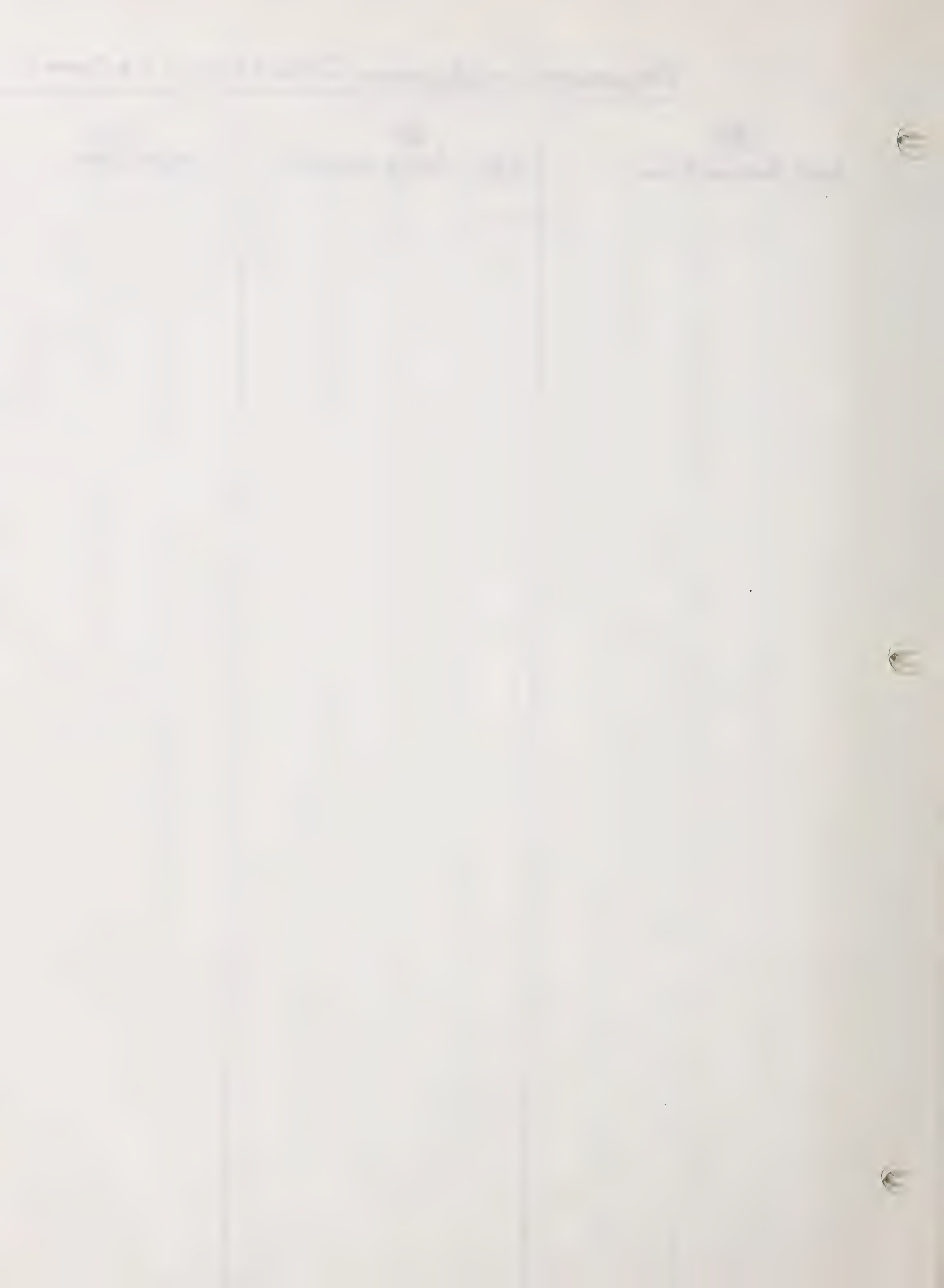
⑯

Right testis anterior

⑰

Testes even





Phrynosoma platyrhinos Adults (65+ mm S-U)

No.	Left ovary	Right ovary
1		
2		
3		
4		
5		
6		
7		
8		I
9	I	
10	III	
11	III	III
12	I	III
13	III	I
14	II	I
15		
16	III	III
17		II
18	I	I
19		
20		



Phrynosoma platyrhinos Immature

No.	Left ovary	Right ovary
-----	------------	-------------

1		
---	--	--

2		
---	--	--

3		
---	--	--

4		
---	--	--

5		
---	--	--

6		
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7		
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8		
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9		
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10		
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11		
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12		
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13		
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14		
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15		
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16		
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17		
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18		
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19		
----	--	--

20		
----	--	--





Phrynosoma slatyrhinos

EGGS IN OVIDUCT

LEFT

RIGHT

VO. of EGGS	0	1	2	3	4	5	6	7	8	9	10		0	1	2	3	4	5	6	7	8	9	10	
VO. of TAG																								
33			✓														✓							
57				✓												✓								
63					✓											✓								
69		✓															✓							
71				✓													✓							



Phrynosoma platyrhinos

SIZE OF EGGS IN OVIDUCT

LEFT

RIGHT

LIZARD NO.

SIZE IN mm.

33 16.8 x 9.7 17.0 x 8.0

57 15.6 x 10.0 16.4 x 10.0 16.9 x 9.7

63 13.8 x 9.5 14.0 x 10.0 13.8 x 9.5 13.7 x 9.7

69 17.8 x 11.8

71 15.1 x 11.0 14.5 x 11.4 16.3 x 11.2

$N = 13$

$\Sigma X = 201.7 \times 131.5$

$\bar{X} = 15.5 \times 10.1 \text{ mm}$

SIZE IN mm

16.0 x 9.6 17.0 x 10.3 17.1 x 10.0 16.6 x 10.4

15.9 x 10.4 15.7 x 10.5 16.5 x 9.9

13.6 x 10.4 14.8 x 9.7 15.1 x 10.6

16.5 x 11.0 16.4 x 10.8 16.1 x 10.7 17.2 x 10.0

16.7 x 11.0 15.3 x 11.6 14.3 x 10.5 15.8 x 11.8

$N = 18$

$\Sigma X = 286.6 \times 189.2$

$\bar{X} = 15.9 \times 10.5 \text{ mm}$

$N = 31$

$\Sigma X = 488.3 \times 320.7$

$\bar{X} = 15.8 \times 10.3 \text{ mm}$

Range = 13.6 x 8.0 mm To 17.8 x 11.8 mm



Phrynosoma platyrhinos

OVA WITH YOLK

LEFT OVARY

RIGHT OVARY

NUMBER OF OVA

1

21

3

41

51

6

7

8

9

10

1

11





Phrynosoma platyrhinos  
FAT BODIES

(7)

MONTH	ADULT (65mm.)		IMMATURE	
	♂	♀	♂	♀
JAN.				
FEB.				
MAR. II				
APR. IIII				
MAY IV				
JUN. IIII				
JUL. IIII				
AUG. IIII				
SEPT. I				
OCT.				
NOV.				
DEC.				



SAIROMA IUS ORFSII

SAUROMALUS OBESUS



Potential Breeders, Sauromalus obesus ♂♂ (170+mm, S-V)

(Smallest ♂ = 170 mm)

(largest ♂ = 210 " )

Totals, 1959-1961

<u>Date</u>	<u># ♂</u>	<u>No ♂</u>	<u>Total</u>	<u>% ♂</u>
Apr. '59	0	1	1	0
May	3	1	4	75
Apr. '60	0	1	1	0
May	3	0	3	100
June	9	0	9	100
July	0	2	2	0
Aug.	0	2	2	0
May '61	0	1	1	0
June	2	1	3	67
July			0	
Aug.	0	2	2	0
Apr. '62	3	0	3	100
May	5	0	5	100
May '63	0	3	3	0

<u>Month</u>	<u># ♂</u>	<u>No ♂</u>	<u>Total</u>	<u>% ♂</u>
Apr.	0	2	2	0
May	6	2	8	75
June	11	1	12	91
July	0	2	2	0
Aug.	0	4	4	0
Total			28	

Totals, 1959-1963

Apr.	3	2	5	60
May	11	5	16	69
Jun	11	1	12	92
Jul.	0	2	2	0
Aug	0	4	4	0
			39	



Testis Volumes, *Sauromalus obesus* Adults (170+mm S-U)

Left testis larger

|||||

Right testis larger

|||||

Testes same size

||



Testis Volumes, *Sauromalus obesus* Immature (< 170 mm S-U)

Left testis larger

I

Right testis larger

II

Testes same size





Sauromalus obesus Adults (170+ mm S-V)

⑮  
Left testis anterior

I

⑯  
Right testis anterior

II

⑰  
Testes even

III



Sauromalus obesus Immature (<170 mm S-V)

(15)  
Left testis anterior

(16)  
Right testis anterior

(17)  
Testes even





Sauromalus obesus Adult (120+mm S-V)

No.	Left ovary	Right ovary
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		



Sauromalus obesus Immature

No.	Left ovary	Right ovary
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		



*Sceloporus*  
*graciosus*



*Sceloporus*  
*graciosus*

# SCOROPHUS GRACIOSUS

## TOTAL COLLECTED

MONTH	IMM			AD		
	♂	♀	Total	♂	♀	Total
JAN	-	-	-	-	-	-
FEB	-	-	-	-	-	-
MAR	-	-	-	-	-	-
APR	2	-	2	37	12	51
MAY	1	1	2	68	51	119
JUN	2	1	3	41	34	65
JUL	14	5	19	51	65	116
AUG	2	2	4	58	50	108
SEP	1	1	2	27	13	40
OCT	-	-	-	-	-	-
NOV	-	-	-	-	-	-
DEC	-	-	-	-	-	-
	22	10	32	284	215	499
						TOTALS



DATE

ENLARGED TESTES ( > 80 mm<sup>3</sup> )

1959 5/17 - 5/17, 8/11 - 7/14

1960 5/18 - 7/16

1961 4/19 - 5/16

1962 4/21 - 6/26, 8/18

1963 4/18 - 6/5, 8/11 - 7/10

4/19 - 7/10, 7/14 - 7/18

CONVOLUTED EPIDIDYMIS

1959 5/17 - ~~5/17~~

1960 5/18 - 7/16

1961 4/19 - 5/16

1962 4/21 - 7/16

1963 4/18 - 7/10

4/21 - ~~7/18~~ 7/25 OR

PROTICULAR STIMULI

1959 5/17 - ~~5/17~~ 7/19

1960 5/18 - 7/16

1961 4/19 - 5/16

1962 5/11 - ~~5/16~~ 7/25

1963 5/12 - 7/18

~~7/18~~  
~~5/18 - 7/18~~  
4/23 - 7/25 OR

FEEDING

OVA HATCHING Yolk

1959 5/17 - 5/17

1960 7/15 - 5/15

1961 4/19 - 5/16

1962 4/21 - 4/26

1963 5/11 - 7/16

4/19 - 7/16





S. 4. (cont)

ENLARGED EGGS (> 2 mm)

1959 5/11 - 5/11

1960 5/15 - 5/15

1961 5/22 - 5/22

1962 5/11 - 6/16

1963 5/18 - 5/18

5/22 - 5/16 OK

CONVOLUTED CVIDUCTS

1959 5/11 - 5/11

1960 5/15 - 5/15

1961 5/11 - 5/11

1962 5/21 - 5/18

1963 5/11 - 5/11

5/11 - 5/11 OK

EGGS IN CVIDUCTS

1959 5/11 - 5/17

1960 -

1961 -

1962 5/11 - 5/11

1963 5/11 - 5/11

5/11 - 5/11 OK

CORPORA LUTEA

1959 5/17

1960 5/16

1961 -

1962 5/11 - 5/25

1963 5/11 - 5/18

5/11 - 5/25

5/17 - 5/25



Potential Breeders, Sceloporus graciosus ♂♂ (55+mm, S-V).  
So. Calif.

Date	# ♂	No ♂	Total	% ♂
May '59	10	1	11	<del>91</del> 91
Jul '59	8	2	2	0
Aug.	0	7	7	0
Sep.	0	9	9	0
May '60	3	0	3	100
Jul '60	0	5	5	0
Apr '61	8	10	18	44
May	16	0	16	100
Apr. '62	1	3	4	25
May	19	0	19	100
Jun	27	1	28	96
Jul.	11	7	18	61
Aug	0	12	12	0
Apr. '63	0	14	14	0
May	16	4	20	80
Jun	14	0	14	100
Jul.	22	2	24	92
Aug	0	28	28	0
Sep-	0	13	13	0

Totals, '59 - '63

Month	# ♂	No ♂	Total	% ♂
Apr	9	27	36	25
May	64	5	69	93
Jun	41	1	42	98
Jul.	33	16	49	67
Aug.	0	47	47	0
Sep.	0	22	22	0
Total			265	



Sceloporus graciosus Dissected for Reproduction Study $\sigma = 55^+ \text{mm (S-V)}$   
 $\text{♀} = 50^+ \text{mm (S-V)}$ 

	<u>1958-1962</u>			<u>1963</u>		
	<u>San Bernardino</u>	<u>San Gabriel</u>	<u>San Jacinto</u>	<u>San Bernardino</u>	<u>San Gabriel</u>	<u>San Jacinto</u>
April						
$\sigma$	17	9	—	—	—	15
$\text{♀}$	7	5	—	—	—	—
May						
$\sigma$	12	11	27	4	10	6
$\text{♀}$	4	6	28	1	9	5
June						
$\sigma$	—	15	12	14	—	—
$\text{♀}$	—	6	9	9	—	—
July						
$\sigma$	—	22	2	6	11	10
$\text{♀}$	—	34	—	4	16	10
Aug.						
$\sigma$	15	8	3	12	10	10
$\text{♀}$	20	4	6	9	6	5
Sept.						
$\sigma$	9	2	1	11	4	—
$\text{♀}$	4	2	1	4	3	—





Sceloporus graciosus (♀♀)

+ = ova accumulating yolk

- = " not " " "

San Bernardino Mts.

	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
Apr.			+(9th)		
May	+				+
June					+
July					-
Aug.				-	-
Sept.					-

Summary

Apr.	+
May	+
June	+
July	- S.B, S.G. + S.J.
Aug.	-
Sept.	-

San Gabriel Mts.

	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
Apr.				+(21st)	
May				+	+
June				+	
July				-	-
Aug.					-
Sept.					-

San Jacinto Mts.

	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
Apr.					
May		+	+	+	+
June				+	
July					+
Aug.					-
Sept.					



Sceloporus graciosus (♀♀)

<u>Lizard No.</u>	<u>Mountain Range</u>	<u>Date Caught</u>	<u>No. of Eggs</u>	
			<u>L. Oviduct</u>	<u>R. Oviduct</u>
24	S. Bern.	5/17/59	2	3
25	"	"	2	3
215	S. Jac.	6/3/62	3	3
220	"	"	3	3
226	"	"	3	2
234	S. Gab.	6/26/62	2	2
236	"	"	2	2
239	"	"	2	3
375	S. Bern.	6/5/63	3	3
382	"	"	2	1
390	"	"	2	3
391	"	"	3	2
412	S. Jac.	7/16/63	1	1
420	"	"	1	2
426	"	"	2	2
444	S. Gab.	7/18/63	1	2
446	"	"	1	2
447	"	"	2	2
448	"	"	2	3





# Sceloporus graciosus (♂♂)

+ = sperm present at terminal end of vas deferens

- = " not " " " " " " "

## San Bernardino Mts.

	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
Apr.			(9 <sup>th</sup> ) +(23 <sup>rd</sup> )		
May	+			few + (12 <sup>th</sup> )	
June				+	
July				+	
Aug.	-			-	-
Sept.	-				-

## Summary

Early Apr.	-
Late Apr.	+
May	+
June	+
July	+
Aug.	-
Sept.	-

## San Gabriel Mts.

	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
Apr.				(21 <sup>st</sup> ) +(24 <sup>th</sup> )	
May				+	+
June				+	
July		-		few +	+
Aug.	-				-
Sept.	-				-

## San Jacinto Mts.

	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
Apr.					-(24 <sup>th</sup> )
May		+	+	+	+
June				+	
July					+
Aug.					-
Sept.					



Sceloporus graciosus (55+ mm, S-U)

Left Testis volume - Summary 1954-1963.

Month	$\Sigma X$	N	$\bar{X}$
Apr.	7401	38	194.8
May	13728	68	201.9
Jun	4586	40	114.6
Jul.	1201	48	25.0
Aug	2436	53	46.0
Sep.	2811	25	112.4



Sceloporus graciosus Testis Volumes (55<sup>+</sup>mm SV)

1958

Left Testis

AUG SEPT

132 123

33 78

32

TOTAL VOL 197 201

MEAN 65.7 100.5

RANGE 32-132 78-123

NO. LIZARDS 3 2

Right Testis

AUG SEPT

82 135

20 65

21

TOTAL VOL 123 200

MEAN 41.0 100.0

RANGE 20-82 65-135

NO. LIZARDS 3 2





# Sceloporus graciosus Testis Volumes (55<sup>+</sup> mm S-V)

1959  
Left Testis

MAY	JUN	JUL	AUG	SEPT
115	—	7	78	108
123		15	91	67
102			118	137
149			33	69
133			71	88
113			20	117
118			16	59
55			53	47
102			13	143
229			36	16

TOTAL VOL	1239	0	22	529	851
MEAN	123.9	0	11.0	52.9	85.1
RANGE	55-229	0	7-15	13-118	16-143
NO. LIZARDS	10	0	2	10	10

Right Testis

137	+	11	78	131
118		11	107	84
105			131	115
132			35	73
145			76	75
104			16	69
165			13	53
61			63	61
125			17	157
179			24	25

TOTAL VOL	1271	0	22	560	843
MEAN	127.1	0	11.0	56.0	84.3
RANGE	61-179	0	—	13-131	25-157
NO. LIZARDS	10	0	2	10	10

100 100 100 100 100  
 100 100 100 100 100  
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 100 100 100 100 100  
 100 100 100 100 100

Sceloporus graciosus Testis Volumes (55+ mm S-V)

1960  
Left Testis

MAY	JUN	JUL
176	—	12
281		38
240		11
		11
		111

TOTAL VOL	697	0	183
MEAN	232.3	0	36.6
RANGE	176-281	0	11-111
NO. LIZARDS	3	0	5

Right Testis

MAY	JUN	JUL
233	—	12
235		24
220		9
		41
		55

TOTAL VOL	688	0	191
MEAN	229.3	0	38.2
RANGE	220-235	0	9-55
NO. LIZARDS	3	0	5





*Sceloporus graciosus* Testis Volumes (55<sup>+</sup> mm S-V)

1961

~~Left~~ Testis

APR MAY

211 167

165 184

178 240

205 147

149 217

232 286

217 235

200 203

205 312

154 288

203 183

263 252

266 361

220 217

153 273

220 153

323

254

TOTAL VOL 3818 3718

MEAN 212.1 232.4

RANGE 149-323 147-361

NO. LIZARDS 18 16



Sceloporus graciosus Testis Volumes (55mm S-V)

1961  
R. H. P. Davis

APR MAY

176 134

167 179

157 208

246 120

101 251

286 222

220 193

171 210

125 265

149 208

222 208

217 196

188 208

228 280

249 222

187 124

246

238

TOTAL VOL 3573 3228

MEAN 198.5 201.8

RANGE 101-286 120-280

NO. LIZARDS 18 16

... ..

6.

15

1.



# Sceloporus graciosus Testis Volumes (55<sup>+</sup>mm S-V)

1962

Left Testis

APR	MAY	JUN	JUL	AUG
111	157	124	10	42
198	213	132	11	57
149	157	193	20	44
222	129	203	22	32
328	173	111	18	67
256	244	104	8	73
	168	149	27	94
	208	155	11	67
	208	121	11	30
	208	116	24	42
	168	235	22	63
	153	179	13	51
	188	53	11	
	176	102	32	
	308	51	7	
	259	68	20	
	259	53	13	
	252	111		
	222	67		
		149		
		102		
		70		
		111		
		105		
		57		
		93		
		39		

	APR	MAY	JUN	JUL	AUG
TOTAL VOL	1264	3850	3053	280	662
MEAN	210.7	202.6	113.1	16.5	55.2
RANGE	111-328	129-308	39-235	7-27	30-97
NO. LIZARDS	6	19	27	17	12





Sceloporus graciosus Testis Volumes (55<sup>th</sup> mm S-V)

1962  
Right Testis

APR	MAY	JUN	JUL	AUG
130	200	139	7	53
184	210	145	12	47
121	198	205	18	33
208	128	131	24	24
302	150	154	15	59
280	213	122	8	57
	158	141	19	104
	180	128	9	66
	246	123	11	42
	222	135	19	41
	108	203	18	60
	149	193	13	38
	182	51	16	
	211	81	25	
	334	53	7	
	214	76	13	
	217	48	11	
	220	109		
	230	67		
		120		
		82		
		78		
		105		
		118		
		53		
		90		
		53		

	APR	MAY	JUN	JUL	AUG
TOTAL VOL.	1225	3770	3003	245	624
MEAN	204.2	198.4	111.2	14.4	52.0
RANGE	121-302	109-334	48-205	7-25	24-104
NO. LIZARDS	6	19	27	17	12

Handwritten text in the upper middle section, possibly a title or introductory paragraph.

Main body of handwritten text, consisting of several lines of script.

Handwritten text in the bottom left corner, possibly a signature or date.

Handwritten text in the bottom middle section, possibly a date or reference.

Handwritten text in the bottom right corner, possibly a signature or date.

Sceloporus graciosus - Testis volume (55+mm, S-V)

1963

Left Testis

Apr	May	Jun	Jul	Aug	Sep
200	208	111	13	42	146
165	176	122	40	24	161
165	184	105	11	20	131
188	150	111	44	84	171
118	249	108	42	69	55
128	230	118	8	28	145
168	198	169	34	36	150
184	268	107	18	6	223
182	308	102	52	62	188
198	273	105	42	42	85
157	200	132	16	30	46
154	188	135	45	17	121
158	230	108	36	6	137
149	191		78	16	

236

176

208

121

179

238

58

11

21

20

38

16

32

15

16

10

16

81

82

55

24

Apr	May	Jun	Jul	Aug	Sep.
2319	4224	<del>1533</del>	716	1048	1759
14	20	13	24	<del>28</del>	13
167.3	211.0	117.9	29.8	37.4	135.3

range





# Sceloporus graciosus - Testis volume (55<sup>+</sup>, S-V)

1963

## Right Testis

Apr	May	Jun	Jul	Aug	Sep.
149	217	104	13	59	123
124	269	139	33	19	104
200	235	120	8	26	120
208	178	128	44	77	184
121	328	140	30	81	50
149	246	128	13	28	121
149	203	193	53	30	164
149	269	120	30	6	186
203	286	132	42	42	154
149	278	139	43	39	83
150	269	120	13	30	24
149	203	137	31	17	139
139	258	108	39	6	107
147	162		78	8	
	263		75	22	
	193		8	9	
	229		19	16	
	188		16	5	
	182		26	10	
	246		15	11	
			38	57	
			13	78	
			18	55	
			11	13	
				61	
				81	
				38	
				24	

ΣX

N

$\bar{X}$

range

Apr	May	Jun	Jul	Aug	Sep
14	20	13	24	28	13



Sceloporus graciosus  
FAT BODIES  
⑦

MONTH	ADULT		IMMATURE	
	(♂ 55+mm.)	(♀ 50+mm.)	♂	♀
JAN.				
FEB.				
MAR.				
APR.	52			
MAY	70			/
JUN.	13	25	/	/
JUL.	65	70		
AUG.	51	61	/	/
SEPT.	13	2	/	/
OCT.				
NOV.				
DEC.				



Testis Volumes, *Sceloporus graciosus* Adults (55+ mm S-V)

Left testis larger

|||||

|||||

Right testis larger

|||||

Testes same size

|||||





Testis Volumes, *Sceloporus graciosus* Immature (<55mm S-V)

Left testis larger

||||

Right testis larger

||||

Testes same size

|



Sceloporus graciosus Adults (55+ mm S-V)

⑮  
Left testis anterior

⑯  
Right testis anterior

⑰  
Testes even






Sceloporus graciosus Immature (<55-mm S-V)

(15)

Left testis anterior

(16)

Right testis anterior

(17)

Testes even

|||||



Sceloporus graciosus Adult ♂ (55+mm S-V)

	B	B1	B2	B3
Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				



Sceloporus graciosus Immature

	B	B1	B2	B3
Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				





Sceloporus graciosus Adult (50<sup>+</sup> mm. S-V)

①⑨	①⑧	②⑦
LEFT OVARY ANTERIOR	RIGHT OVARY ANTERIOR	OVARIES EVEN



Sceloporus graciosus

EGGS IN OVIDUCT

LEFT

RIGHT

NO. of EGGS	0	1	2	3	4	5	6	7	8	9	10		0	1	2	3	4	5	6	7	8	9	10	
NO. of TAG																								
25			✓													✓								
215				✓												✓								
220				✓												✓								
226				✓											✓									
234			✓												✓									
236			✓												✓									
239			✓													✓								
375				✓												✓								
382			✓											✓										
390			✓													✓								
391				✓											✓									
412		✓												✓										
420		✓													✓									
426			✓												✓									
444		✓													✓									
446		✓													✓									
447			✓												✓									
448			✓													✓								
24			✓													✓								





Sceloporus graciosus  
SIZE OF EGGS IN OVIDUCT

LEFT

RIGHT

LIZARD NO.

~~SIZE~~ SIZE IN mm.

24 12.3 x 8.1 12.3 x 7.8

25 11.4 x 7.5 11.3 x 6.9

215 12.0 x 8.3 12.3 x 8.3 12.0 x 8.3

220 11.4 x 8.4 12.0 x 7.0 11.6 x 8.7

226 12.3 x 8.0 10.5 x 8.7 11.4 x 8.3

234 13.5 x 8.4 14.4 x 7.7

236 10.5 x 7.5 12.0 x 7.2

239 11.6 x 7.8 12.2 x 8.6

375 12.3 x 7.5 11.1 x 6.8 11.4 x 7.2

382 12.8 x 7.5 11.4 x 8.6

390 12.5 x 8.1 12.6 x 8.7

391 12.0 x 8.4 11.6 x 8.0 11.1 x 7.4

412 13.8 x 8.3

420 14.1 x 7.8

426 12.5 x 8.0 12.9 x 8.3

444 14.4 x 8.3

446 15.0 x 7.4

447 13.9 x 8.3 13.5 x 8.0

448 11.7 x 8.7 12.8 x 6.9

$N = 39$

$\Sigma X = 480.3 \times 311.7$

$\bar{X} = 12.3 \times 8.0 \text{ mm}$

SIZE IN mm

13.5 x 7.8 14.4 x 8.3 14.8 x 8.4

12.0 x 7.8 11.3 x 8.0 11.6 x 8.4

12.3 x 7.8 12.6 x 7.4 12.5 x 8.0

11.9 x 7.8 11.3 x 8.3 12.0 x 8.0

12.0 x 7.5 12.8 x 8.3

14.0 x 8.3 13.5 x 8.9

12.0 x 7.5 12.0 x 8.6

12.3 x 8.7 12.0 x 8.0 12.6 x 8.1

12.0 x 6.9 11.4 x 7.5 9.0 x 7.4

13.8 x 8.0

12.0 x 8.7 12.5 x 8.1 11.6 x 7.4

12.0 x 7.7 13.5 x 7.5

15.6 x 9.0

13.7 x 7.4 13.7 x 8.4

13.8 x 9.3 13.5 x 9.2

14.0 x 8.3 14.0 x 8.9

13.8 x 7.8 14.1 x 7.8

12.9 x 8.1 12.5 x 7.8

(broken)  
12.5 x 8.3 11.7 x 8.0 11.4 x 8.3

$N = 44$

$\Sigma X = 558.4 \times 355.7$

$\bar{X} = 12.7 \times 8.1 \text{ mm}$

$N = 83$

$\Sigma X = 1038.7 \times 667.4$

$\bar{X} = 12.5 \times 8.0 \text{ mm}$

Range = 9.6 x 6.8 mm to 15.6 x 9.3 mm

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Sceloporus graciosus

OVA WITH YOLK

LEFT OVARY

RIGHT OVARY

NUMBER OF OVA

1 ~~||||~~

~~||||~~

2 ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~

~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~

3 ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~

~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~

4 ||

||

5 |

6

7

8

9

10

Inventory and Management  
of the [illegible]

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

Sceloporus graciosus Adult (50+ mm S-V)

No. Ova	Left ovary	Right ovary
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		





Sceloporus graciosus Immature

No.	Left ovary	Right ovary
1		
2		
3	I	
4		I
5	II	I
6	I	I
7	III	I
8	I	III
9	I	II
10		
11		
12		
13		
14		
15		
16		I
17		
18		
19		
20		
21		
22	I	



Sceloporus graciosus Adult ♀ (50+mm S-V)

B	B1	B2	B3
Jan			
Feb			
Mar			
Apr II	III		
May <del>    </del>	<del>    </del>	III	I
Jun III	II	<del>    </del>	<del>    </del>
Jul <del>    </del>	<del>    </del>	<del>    </del>	<del>    </del>
Aug <del>    </del>	<del>    </del>	III	
Sep			
Oct			
Nov			
Dec			





Sceloporus graciosus Immature ♀

B	B1	B2	B3
Jan			
Feb			
Mar			
Apr			
May 1			
Jun 1			
Jul 11	11		
Aug 1			
Sep			
Oct			
Nov			
Dec			



SCOTT  
MASTER



I.R. - 13 8 1/2 x 11



SCOLOPODUS  
REGISTER

# Sceloporus magister

Total Collected (thru March 1967)

<u>Month</u>	<u>IMM.</u>			<u>ADULT</u>			<u>Grand Total</u>
	<u>♂</u>	<u>♀</u>	<u>Total</u>	<u>♂</u>	<u>♀</u>	<u>Total</u>	
JAN	—	—	—				
FEB	—	—	—				
MAR	—	1	1				
APR	1	—	1	22	7	29	
MAY	1	1	2	14	7	21	
JUNE	3	2	5	16	18	34	
JULY	8	11	19	16	11	27	
AUG	6	4	10	9	13	22	
SEPT	4	3	7	10	2	12	
OCT	—	1	1	7	6	13	
NOV	—	—	—	—	—	—	
DEC	—	—	—	—	—	—	
Total	23	23	46	108	54	162	208





SCEROPHAGUS MAGISTER REPRODUCTION (CONT)

MALE

ENLARGED TESTIS (>100 mm<sup>3</sup>)

1959 4/14 - 4/17, 5/15 - 5/17

1960 5/10 - 5/21

1961 5/11 - 5/14

1962 4/12 - 4/23, 5/12

5/15 - 5/16, 5/17 - 5/18

CONVULSED EPIDIDYMI

1959 5/10 - 5/17

1960 4/12 - 5/10

1961 5/11 - 5/14

1962 4/12 - 4/23

4/24 - 4/27

IMMATURE SPERM

1959 5/11 - 5/14

1960 5/10 - 5/21

1961 5/11 - 5/14

1962 5/11 - 5/21 (Sperm April)

~~5/15 - 5/16~~

4/22 - 6/26

FEMALE

OVER ACCUMULATED YOLK

1959 ~~10/11~~

1960 4/12

1961 -

1962 4/12 - 5/27

4/12 - ~~5/11~~ 6/27



S. H. SEAT

ENCASED Eggs (> 4 mm)

1959

-

1960

4/2

1961

-

1962

4/22 - 6/27

7/2 - 9/27

CONVERTED CIVILIAN

1959

5/8 - 10/11

1960

4/2 - 5/21

1961

-

1962

4/22 - 8/18

4/2 - 10/11

Eggs IN CIVILIAN

1959

-

1960

5/20 - 5/21

1961

-

1962

6/27 - 6/27

5/20 - 6/27

CONVERTED CIVILIAN

1959

-

1960

5/20 - 5/21

1961

-

1962

6/27 - 6/27

5/20 - 6/27

OK





# Potential Breeders, Sceloporus magister ♂♂ (85+mm, S-V)

(smallest ♂ = 92 mm.)

(largest ♂ = 119 " )

Date	# ♂	No ♀	Total	% ♂
Apr. '59	0	1	1	0
May	1	1	2	50
June	2	0	2	100
July	0	7	7	0
Aug.	0	5	5	0
Sept.	0	5	5	0
Oct.	0	7	7	0
Mar. '60	0	4	4	0
Apr.	0	3	3	0
May	4	0	4	100
June			0	
July	0	1	1	0
May '61	2	0	2	100
June			0	
July			0	
Aug.	0	1	1	0
Sept.	0	1	1	0
Apr. '62	18	0	18	100
May	4	0	4	100
Jun	12	2	14	86
Jul.	4	3	7	57
Aug.	1	1	2	50
Sep.	0	1	1	0
Sep. '63			0	
May '64	1	0	1	100

Month	# ♂	No ♀	Total	% ♂
Mar.	0	4	4	0
Apr.	0	4	4	0
May	7	1	8	88
June	2	0	2	100
July	0	8	8	0
Aug.	0	6	6	0
Sept.	0	6	6	0
Oct.	0	7	7	0
Total			45	

## Totals, 1959-1963.

Month	# ♂	No ♀	Total	% ♂
<del>Mar.</del>	0	4	4	0
Apr.	18	4	22	82
May	11	1	12	92
Jun.	14	2	16	88
Jul.	4	11	15	27
Aug.	1	7	8	12
Sept.	0	7	7	0
Oct.	0	7	7	0
Total			91	

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1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

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Sceloporus magister (85+ mm, S-V)

Left testis volume - Summary 1959-1962

To March 1967

Month	$\Sigma x$	$N$	$\bar{x}$ (318.2)	$\Sigma x$	$N$	$\bar{x}$
Mar.	1273	4	<del>318.2</del>			
Apr.	7672	22	348.7	same		
May	3141	12	261.8	4148	14	296
Jun	1931	16	120.7	same		
Jul	542	16	33.9	same		
Aug	385	9	42.8	same		
Sep	477	7	68.1		9	73
Oct.	885	7	126.4	same		





Sceloporus magister Testis Volumes (85+mm S-V)

1959  
Left Testis

APR	MAY	JUN	JUL	AUG	SEPT	OCT
141	25	97	38	33	36	134
	120	22	69	27	45	84
			26	39	63	141
			33	25	30	171
			32	34	205	128
			45			99
			27			128

TOTAL VOL	141	145	119	270	158	379	885
MEAN	141	72.5	59.5	<del>38.6</del> 31.6	75.8	126.4	
RANGE	—	25-120	22-97	26-69	25-39	30-205	84-134
NO. LIZARDS	1	2	2	7	5	5	7

Right Testis

APR	MAY	JUN	JUL	AUG	SEPT	OCT
121	33	147	25	31	33	145
	205	17	63	15	24	89
			22	27	57	161
			30	20	19	163
			31	25	188	143
			30			75
			24			119

TOTAL VOL	121	238	164	225	118	321	895
MEAN	121	119.0	82.0	32.1	23.6	64.2	127.9
RANGE	—	33-205	17-147	22-63	15-31	19-188	75-163
NO. LIZARDS	1	2	2	7	5	5	7



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Year	Month	Day	Time	Location	Remarks
1900	Jan	1	10	...	...
1900	Jan	2	11	...	...
1900	Jan	3	12	...	...
1900	Jan	4	13	...	...
1900	Jan	5	14	...	...
1900	Jan	6	15	...	...
1900	Jan	7	16	...	...
1900	Jan	8	17	...	...
1900	Jan	9	18	...	...
1900	Jan	10	19	...	...
1900	Jan	11	20	...	...
1900	Jan	12	21	...	...
1900	Jan	13	22	...	...
1900	Jan	14	23	...	...
1900	Jan	15	24	...	...
1900	Jan	16	25	...	...
1900	Jan	17	26	...	...
1900	Jan	18	27	...	...
1900	Jan	19	28	...	...
1900	Jan	20	29	...	...
1900	Jan	21	30	...	...

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Year	Month	Day	Time	Location	Remarks
1900	Jan	1	10	...	...
1900	Jan	2	11	...	...
1900	Jan	3	12	...	...
1900	Jan	4	13	...	...
1900	Jan	5	14	...	...
1900	Jan	6	15	...	...
1900	Jan	7	16	...	...
1900	Jan	8	17	...	...
1900	Jan	9	18	...	...
1900	Jan	10	19	...	...
1900	Jan	11	20	...	...
1900	Jan	12	21	...	...
1900	Jan	13	22	...	...
1900	Jan	14	23	...	...
1900	Jan	15	24	...	...
1900	Jan	16	25	...	...
1900	Jan	17	26	...	...
1900	Jan	18	27	...	...
1900	Jan	19	28	...	...
1900	Jan	20	29	...	...
1900	Jan	21	30	...	...

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Sceloporus magister Testis Volumes (85<sup>+</sup> mm SV)

1960

Left Testis

MAR	APR	MAY	JUN	JUL
299	422	227	—	10
425	232	110		39
208	483	198		
341		361		

Right Testis

MAR	APR	MAY	JUN	JUL
278	303	144	—	8
328	184	111		34
161	348	181		
282		298		<del>2</del>

TOTAL VOL	1273	1137	896	0	49
MEAN	318.3	379.0	224.0	0	24.5
RANGE	208-425	232-483	110-361	0	10-39
NO. LIZARDS	4	3	4	0	2

1049	835	734	0	42
262.3	278.3	183.5	0	21.0
161-328	184-348	111-298	0	8-34
4	3	4	0	2

Left Testis 1961

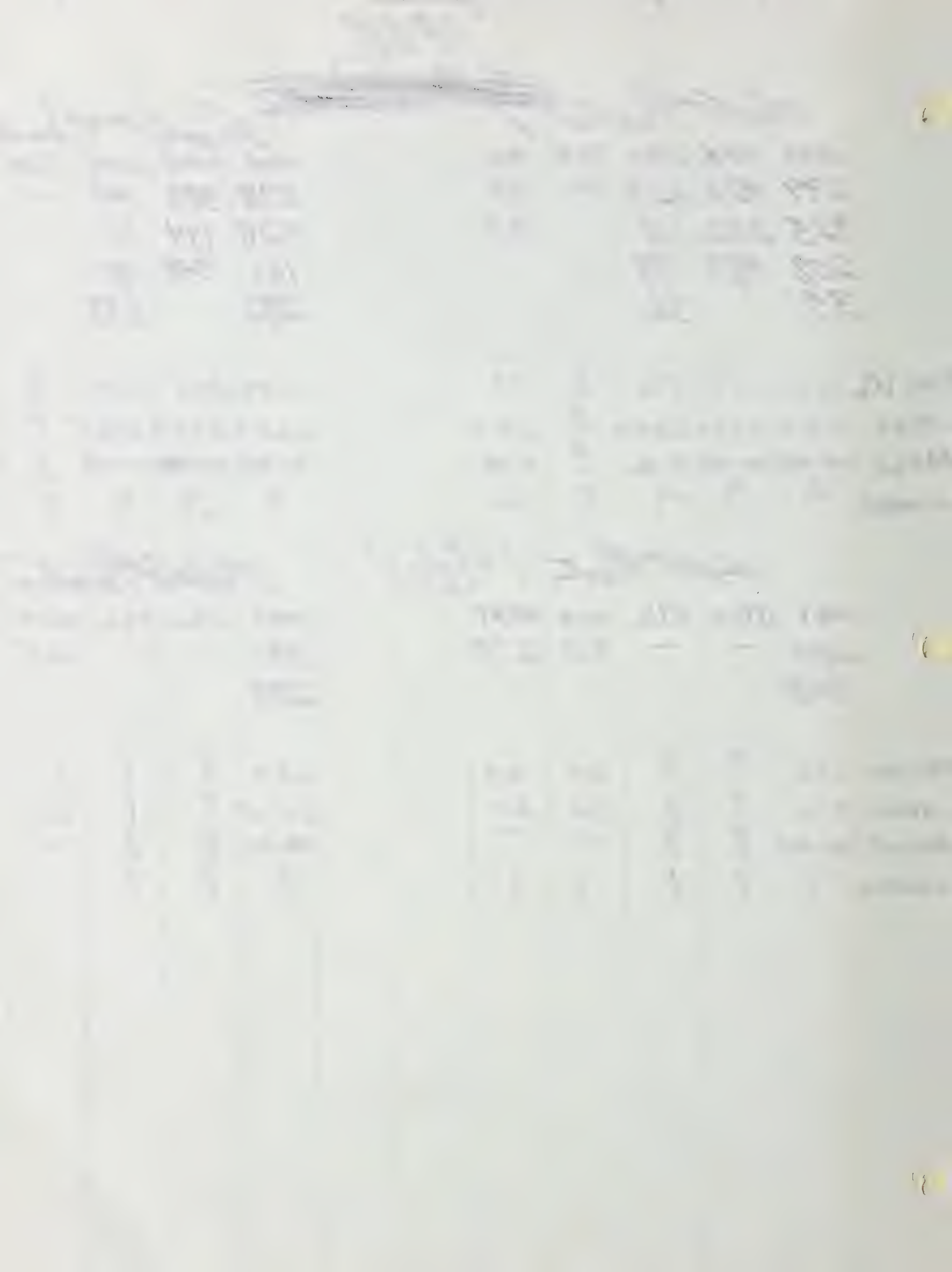
MAY	JUN	JUL	AUG	SEPT
284	—	—	30	27
348				

Right Testis

MAY	JUN	JUL	AUG	SEPT
341	—	—	25	24
298				

TOTAL VOL	632	0	0	30	27
MEAN	316	0	0	30	27
RANGE	284-348	0	0	—	—
NO. LIZARDS	2	0	0	1	1

639	0	0	25	24
319.5	0	0	25	24
298-341	0	0	—	—
2	0	0	1	1



Sceloporus magister Testis Volumes (85<sup>+</sup> mm S-V)

1962

Left Testis

APR	MAY	JUN	JUL	AUG	SEPT
280	348	189	27	27	71
328	457	230	36	65	
344	448	102	32	105	
312	215	163	18		
425		97	39		
394		41	36		
294		11	35		
292		134			
280		55			
440		169			
499		208			
358		89			
456		131			
334		193			
217					
298					
312					
531					

TOTAL VOL 6394 1468 1812 223 197 71

MEAN 355.2 367.0 129.4 31.9 65.7 71

RANGE 217-531 215-457 11-230 18-39 27-105 -

NO. LIZARDS 18 4 14 7 3 1







# Acelosaurus magister Testis Volumes (85+ mm S-V)

1962  
Right ~~Left~~ Testis

APR	MAY	JUN	JUL	AUG	SEPT
275	348	189	27	27	71
258	457	230	36	65	
237	448	102	32	105	
269	215	163	18		
348		97	39		
495		41	36		
286		11	35		
237		134			
343		56			
348		169			
365		208			
312		89			
448		131			
341		193			
233					
356					
296					
461					

TOTAL VOL 5908 1468 1813 223 197 71

MEAN 328.2 367.0 129.5 31.9 65.7 71

RANGE 233-495 215-457 11-230 18-39 27-105 —

NO. LIZARDS 18 4 14 7 3 1



Testis Volumes, *Sceloporus magister* Adult (75+ mm SVL)

Left testis larger

|||||

|||||

Right testis larger

|||||

Testes same size



# Testis Volumes, *Sceloporus magister* Immature (> 75mm SVL)

Left testis larger

||||

Right testis larger

|

Testes same size





Sceloporus magister Adults (75+ mm S-V)

(15)  
Left testis anterior

(16)  
Right testis anterior  
|||||

(17)  
Testes even  
|||



Sceloporus magister Immature (< 75 mm S-V)

(15)  
Left testis anterior

(16)  
Right testis anterior

(17)  
Testes even





Sceloporus magister Adult ♂ (75+ mm S-V)

	B	B1	B2	B3
Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				



Sceloporus magister Immature

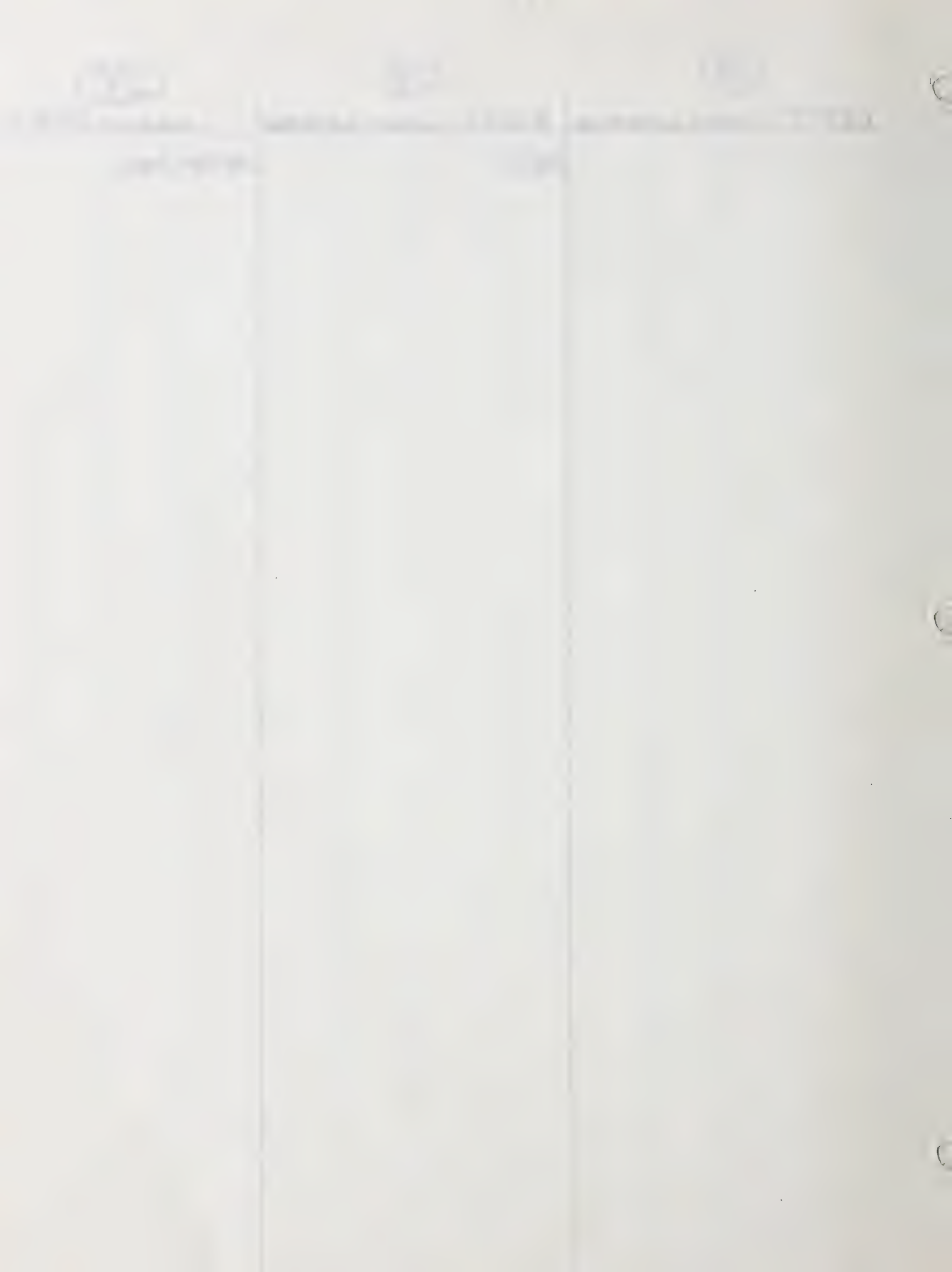
	B	B1	B2	B3
Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep 1				
Oct				
Nov				
Dec				



Sceloporus magister Adult (75<sup>+</sup>mm S-V)

①⑨	①⑧	②⑦
LEFT OVARY ANTERIOR	RIGHT OVARY ANTERIOR	OVARIES EVEN
//	X//	X//X//





Sceloporus magister  
EGGS IN OVIDUCT

LEFT

RIGHT

NO. of EGGS	0	1	2	3	4	5	6	7	8	9	10		0	1	2	3	4	5	6	7	8	9	10
NO. of TAG																							
116					✓														✓				
119						✓												✓					
149						✓												✓					
174						✓												✓					
177					✓													✓					
178					✓													✓					
180						✓												✓					
206					✓													✓					



# Sceloporus magister

## SIZE OF EGGS IN OVIDUCT

LEFT

RIGHT

LIZARD NO.

SIZE IN mm.

116 18.3 x 10.6; 17.4 x 9.9; 16.5 x 9.6; 18.8 x 10.2

119 19.8 x 10.4; 17.8 x 9.9; 17.8 x 11.0; 18.8 x 11.4; 19.1 x 10.6

149 — — — — —

174 17.8 x 10.2; 17.7 x 10.3; 17.9 x 9.5; 17.6 x 9.7; 19.0 x 10.5

177 15.7 x 10.0; 16.5 x 10.4; 17.4 x 10.5; 17.3 x 10.0

178 19.1 x 10.4; 19.7 x 10.3; 20.1 x 12.0; 20.9 x 12.2

180 17.2 x 10.2; 16.8 x 10.5; 15.7 x 11.8; 17.0 x 10.8; 17.3 x 11.0

206 15.9 x 9.5; 16.2 x 10.9; 16.3 x 9.9; 15.0 x 11.1

$N = 31$

$\Sigma X = 548.4 \times 325.5$

$\bar{X} = 17.7 \times 10.5 \text{ mm}$

SIZE IN mm.

18.1 x 9.6 17.1 x 10.3 17.6 x 11.1 16.6 x 10.7 17.3 x 9.5 12.4 x 10.7

18.8 x 10.5 18.5 x 10.7 17.9 x 10.6 18.5 x 10.1 18.3 x 10.5

— — — — —

18.0 x 9.7; 18.2 x 11.7; 18.9 x 11.1; 17.3 x 10.4; 17.7 x 10.5

16.5 x 10.0; 16.8 x 9.6; 17.0 x 11.1; 19.3 x 10.0; 18.7 x 10.6

20.6 x 10.0; 18.2 x 11.5; 18.6 x 10.5; 19.8 x 11.4; 18.9 x 10.0

16.9 x 10.0; 17.0 x 11.2; 16.7 x 10.5; 17.0 x 11.2

15.8 x 11.0; 16.0 x 11.0; 17.7 x 12.5; 17.3 x 11.8

$N = 34$

$\Sigma X = 600.0 \times 361.6$

$\bar{X} = 17.6 \times 10.6 \text{ mm}$

$N = 65$

$\Sigma X = 1148.4 \times 687.1$

$\bar{X} = 17.7 \times 10.6 \text{ mm}$

Range = 12.4 x 9.5 mm to 20.9 x 12.5 mm





Sceloporus magister

OVA WITH YOLK

LEFT OVARY

RIGHT OVARY

NUMBER OF OVA

1

2

3,

4 ~~III~~

5 III

6 1

7 1

8

9

10

1

III

III

III

1



Sceloporus magister  
FAT BODIES  
⑦

MONTH	ADULT		IMMATURE	
	♂ (85 <sup>+</sup> mm.)	♀ (75 <sup>+</sup> mm.)	♂	♀
JAN.				
FEB.				
MAR. <sup>1</sup> IIII		I		
APR. <sup>23</sup> III		IIII		
MAY <sup>15</sup> IIII		II		
JUN. <sup>19</sup> IIII		IIII		
JUL. <sup>20</sup> IIII		IIII		
<del>AUG.</del> <sup>14</sup> III		IIII		
SEPT. <sup>11</sup> II		II		
OCT. <sup>7</sup> II		I		I
NOV.				
DEC.				

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

Table 1

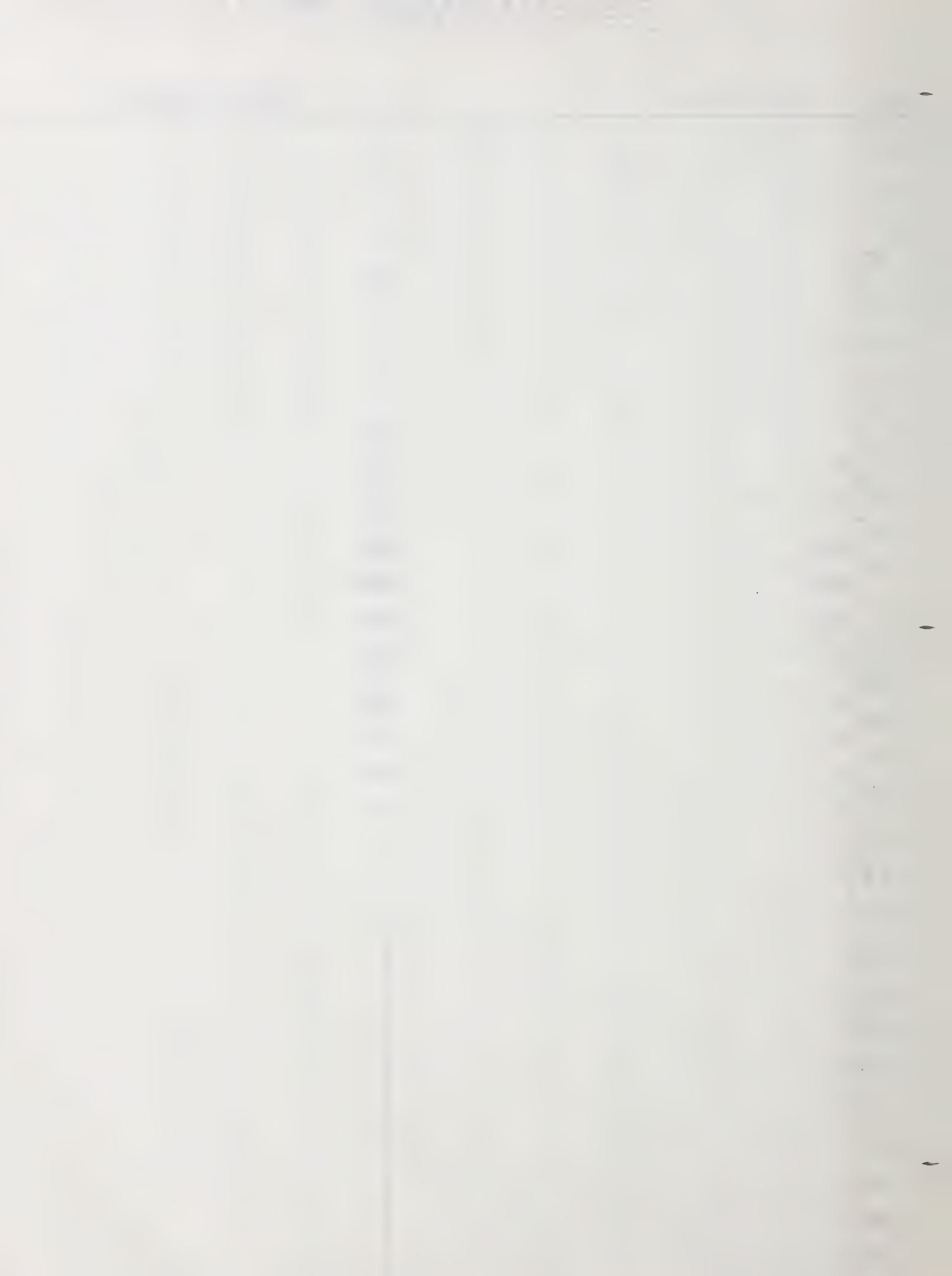
Table 1

Table 1

Sceloporus magister Adult (75+ mm S-U)

No.	Left ovary	Right ovary
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		









Sceloporus magister Immature

No.	Left ovary	Right ovary
5		
6		I
7		
8	II	I
9	III	II
10		II
11	II	III
12	III	III
13	III	III
14		
15	I	
16	II	I
17		II
18		I
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		





Sceloporus magister Adult ♀ (75+ mm S-U)

B

B1

B2

B3

Jan

Feb

Mar

Apr IIII

May

Jun III

Jul IIII

Aug IIII

Sep

Oct

Nov

Dec

IIII



Sceloporus magister Immature

B

B1

B2

B3

Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

Sep

Oct

Nov

Dec



SCELOPORUS  
OCCIDENTALIS



SCELOPORUS  
OCCIDENTALIS

SCeloporus OCCIDENTALIS  
TOTAL COLLECTED

<u>Month</u>	<u>IMM.</u>			<u>AD</u>			
	♂	♀	TOTAL	♂	♀	TOTAL	
JAN	-	-	-	1	-	1	
FEB	3	9	12	17	-	17	
MAR	7	9	16	42	24	66	
APR	7	5	12	55	23	78	
MAY	7	8	15	81	39	120	
JUN	12	3	15	42	25	67	
JUL	17	10	27	32	27	59	
AUG	11	3	14	32	32	64	
SEP	2	1	3	12	11	23	
OCT	-	-	-	11	7	18	
NOV	-	-	-	4	2	6	
DEC	-	-	-	-	-	-	
	66	48	114	329	190	519	TOTALS



MALE

ENLARGED TESTIS (>100 mm)

- 1959 3/3 - 5/29, 8/29 - 10/11  
 1960 3/14 - 5/28, 11/1 - 11/24  
 1961 1/18 - 5/25  
 1962 3/28 - 6/23  
 1/18 - 4/29, 8/21 - 11/21

CONVOLUTED EPIDIDYMUS

- 1959 4/14 - 6/23  
 1960 3/14 - 5/28  
 1961 2/25 - 5/25  
 1962 3/28 - 7/25  
 2/24 (64) - 7/25

MOBILE SEMEN

- 1959 3/3 - 6/23  
 1960 3/14 - 5/28  
 1961 2/25 - 5/25  
 1962 3/28 - ~~5/25~~ 7/25  
 1/25 - ~~5/25~~ 7/25

FEMALE

SUBSTRATE QUANTITIES YEAR

- 1959 4/14 - 7/29  
 1960 4/2 - 5/28  
 1961 3/8 - 5/21  
 1962 3/28 - 6/23  
 3/8 - 7/23





S. 1. (cont)

ENLARGED EGGS (> 3 mm)

1959 4/14 - 7/24

1960 7/18 - 8/28

1961 3/23 - 5/21

1962 3/28 - 6/20

3/18 - 7/24

CONTINUED ENLARGED

1959 7/14 - 10/14

1960 4/18 - 11/24

1961 3/18 - 6/23

1962 3/28 - 7/25

3/8 - 1/24

EGGS IN BURROWS

1959 5/11 - 5/11

1960 5/28

1961 4/27 - 5/21

1962 4/31 - 6/27

7/29 - 7/18 (63)

CONTINUED EGGS

1959 8/20

1960 5/28 - 7/26

1961 4/27 - 5/21

1962 4/31 - 6/27

7/29 - 7/18

OK



Potential Breeders, *Sceloporus occidentalis* ♂♂ (65+mm, S-V)

(smallest ♂ = 61 mm)  
(largest ♂ = 88 " )

Totals, 1958-1961

Date	# ♂	No ♂	Total	% ♂
Aug. '58	0	4	4	0
Sept.	0	6	6	0
Oct.	0	6	6	0
Mar. '59	2	2	4	50
Apr.	4	4	8	50
May	19	0	19	100
June	2	13	15	13
July	0	23	23	0
Aug.	0	25	25	0
Sept.	0	6	6	0
Oct.	0	5	5	0
Mar. '60	2	1	3	67
Apr.	19	1	20	95
May	2	0	2	100
June			0	
July	0	3	3	0
Aug.			0	
Sept.	0	1	1	0
Oct.			0	
Nov.	0	4	4	0
Jan. '61	0	1	1	0
Feb.	4	12	16	25
Mar.	29	8	37	78
Apr.	12	1	13	92
May	18	1	19	95
June	0	4	4	0
July			0	
Aug.			0	
Sept.	0	1	1	0
Mar '62	1	0	1	100

Month	# ♂	No ♂	Total	% ♂
Jan.	0	1	1	0
Feb.	4	12	16	25
Mar.	33	11	44	75
Apr.	35	6	41	85
May	39	1	40	98
June	2	17	19	10
July	0	26	26	0
Aug.	0	29	29	0
Sept.	0	14	14	0
Oct.	0	11	11	0
Nov.	0	4	4	0
Total			245	



Potential Breeders, Sceloporus occidentalis ♂♂ (65+mm, S-V).

Date	# ♂	No ♂	Total	% ♂
Apr. 62	9	0	9	100
May	38	0	38	100
Jun	23	1	24	96
Jul.	2	0	2	100
Apr. '63	3	3	6	50
May '63	3	0	3	100
Jun	1	0	1	100
Jul	4	0	4	100
Aug	0	4	4	0
Feb. 64	0	1	1	0

Totals, 1958-1963.

Month	# ♂	No ♂	Total	% ♂
Jan.	0	1	1	0
Feb.	4	12	16	25
Mar.	34	11	45	76
Apr.	47	9	56	84
May	80	1	81	99
Jun.	26	18	44	59
July	6	26	32	19
Aug.	0	33	33	0
Sep.	0	14	14	0
Oct.	0	11	11	0
Nov.	0	4	4	0
			<u>337</u>	





Potential Breeders, *Scoloporus occidentalis* 0707, B<sub>2</sub> Elevation

Elevation (ft.)

Date	0 - 1711		2000 - 3999		4000 - 5999		6000 - 1999	
	E/T	%E	E/T	%E	E/T	%E	E/T	%E
Aug. '58	0/2	0			0/2	0		
Sept.	0/1	0	0/5	0	0/1	0		
Oct.			0/3	0	0/3	0		
Mar. '59	2/4	50						
Apr.	2/2	100	1/1	100	1/5	20		
May	5/5	100	5/5	100	5/5	100	3/3	100
June	1/4	25	0/1	0	1/10	10		
July	0/10	0	0/8	0	0/8	0		
Aug.	0/2	0	0/2	0	0/10	0	0/5	0
Sept.	0/1	0			0/5	0		
Oct.					0/5	0		
Mar. '60	2/3	67						
Apr.	4/4	100	12/10	120				
May					2/2	100		
June								
July			0/1	0				
Aug.								
Sept.	0/1	0						
Oct.								
Nov.	0/4	0						
Jan. '61	0/1	0						
Feb.	4/16	25						
Mar.	26/33	79	4/2	100				
Apr.	12/13	92						
May	1/3	33	1/1	100	15/15	100	1/1	100
June	0/4	0						
July								
Aug.								
Sept.	0/1	0						

E/T =  
E/T: total



Potential Breeders, Sceloporus occidentalis m.a., By Elevation

(Totals)

Elevation (ft.)

Date	0-1499		2000-3999		4000-5999		6000-7999	
	♂/T	%	♂/T	%	♂/T	%	♂/T	%
Jan.	0/1	0						
Feb.	4/16	25						
Mar.	30/40	75	2/2	100				
Apr.	18/19	95	16/17	94	1/5	20		
May	6/8	75	9/9	100	22/22	100	4/4	100
June	1/8	12	0/1	0	1/10	10		
July	0/10	0	0/9	0	0/6	0		
Aug.	0/4	0	0/2	0	0/18	0	0/5	0
Sept.	0/4	0	0/5	0	0/6	0		
Oct.			0/3	0	0/8	0		
Nov.	0/4	0						

Date		Description		Amount	
1900	Jan 1	Balance		100.00	
		Jan 5	Jan 5	10.00	
		Jan 10	Jan 10	20.00	
		Jan 15	Jan 15	30.00	
		Jan 20	Jan 20	40.00	
		Jan 25	Jan 25	50.00	
		Jan 30	Jan 30	60.00	
		Jan 31	Jan 31	70.00	
		Feb 1	Feb 1	80.00	
		Feb 5	Feb 5	90.00	
		Feb 10	Feb 10	100.00	
		Feb 15	Feb 15	110.00	
		Feb 20	Feb 20	120.00	
		Feb 25	Feb 25	130.00	
		Feb 30	Feb 30	140.00	
		Feb 31	Feb 31	150.00	
		Mar 1	Mar 1	160.00	
		Mar 5	Mar 5	170.00	
		Mar 10	Mar 10	180.00	
		Mar 15	Mar 15	190.00	
		Mar 20	Mar 20	200.00	
		Mar 25	Mar 25	210.00	
		Mar 30	Mar 30	220.00	
		Mar 31	Mar 31	230.00	
		Apr 1	Apr 1	240.00	
		Apr 5	Apr 5	250.00	
		Apr 10	Apr 10	260.00	
		Apr 15	Apr 15	270.00	
		Apr 20	Apr 20	280.00	
		Apr 25	Apr 25	290.00	
		Apr 30	Apr 30	300.00	
		Apr 31	Apr 31	310.00	
		May 1	May 1	320.00	
		May 5	May 5	330.00	
		May 10	May 10	340.00	
		May 15	May 15	350.00	
		May 20	May 20	360.00	
		May 25	May 25	370.00	
		May 30	May 30	380.00	
		May 31	May 31	390.00	
		Jun 1	Jun 1	400.00	
		Jun 5	Jun 5	410.00	
		Jun 10	Jun 10	420.00	
		Jun 15	Jun 15	430.00	
		Jun 20	Jun 20	440.00	
		Jun 25	Jun 25	450.00	
		Jun 30	Jun 30	460.00	
		Jun 31	Jun 31	470.00	
		Jul 1	Jul 1	480.00	
		Jul 5	Jul 5	490.00	
		Jul 10	Jul 10	500.00	
		Jul 15	Jul 15	510.00	
		Jul 20	Jul 20	520.00	
		Jul 25	Jul 25	530.00	
		Jul 30	Jul 30	540.00	
		Jul 31	Jul 31	550.00	
		Aug 1	Aug 1	560.00	
		Aug 5	Aug 5	570.00	
		Aug 10	Aug 10	580.00	
		Aug 15	Aug 15	590.00	
		Aug 20	Aug 20	600.00	
		Aug 25	Aug 25	610.00	
		Aug 30	Aug 30	620.00	
		Aug 31	Aug 31	630.00	
		Sep 1	Sep 1	640.00	
		Sep 5	Sep 5	650.00	
		Sep 10	Sep 10	660.00	
		Sep 15	Sep 15	670.00	
		Sep 20	Sep 20	680.00	
		Sep 25	Sep 25	690.00	
		Sep 30	Sep 30	700.00	
		Sep 31	Sep 31	710.00	
		Oct 1	Oct 1	720.00	
		Oct 5	Oct 5	730.00	
		Oct 10	Oct 10	740.00	
		Oct 15	Oct 15	750.00	
		Oct 20	Oct 20	760.00	
		Oct 25	Oct 25	770.00	
		Oct 30	Oct 30	780.00	
		Oct 31	Oct 31	790.00	
		Nov 1	Nov 1	800.00	
		Nov 5	Nov 5	810.00	
		Nov 10	Nov 10	820.00	
		Nov 15	Nov 15	830.00	
		Nov 20	Nov 20	840.00	
		Nov 25	Nov 25	850.00	
		Nov 30	Nov 30	860.00	
		Nov 31	Nov 31	870.00	
		Dec 1	Dec 1	880.00	
		Dec 5	Dec 5	890.00	
		Dec 10	Dec 10	900.00	
		Dec 15	Dec 15	910.00	
		Dec 20	Dec 20	920.00	
		Dec 25	Dec 25	930.00	
		Dec 30	Dec 30	940.00	
		Dec 31	Dec 31	950.00	



*Sceloporus occidentalis* - (65<sup>+</sup>mm, 5-V)

Left Testis Volume - Summary - 1958-1963.

Month	$\Sigma X$	N	$\bar{X}$
Jan	113	1	113
Feb	5057	16	316.1
Mar	11403	42	271.5
Apr	17871	57	313.5
May	20123	81	248.4
Jun	3407	44	77.4
Jul	666	30	22.2
Aug	1066	29	36.8
Sep	826	14	59.0
Oct.	1904	11	173.1
Nov.	1494	4	373.5



Sceloporus occidentalis Testis Volumes (65mm S-V)

Left Testis  
1958

AUG	SEPT	OCT
19	13	149
19	78	105
12	31	139
12	45	193
	129	190
	40	254

TOTAL VOL 62 336 1030  
MEAN 15.5 56.0 171.7  
RANGE 12-19 13-129 105-254  
NO. LIZARDS 4 6 6

Right Testis

AUG	SEPT	OCT
24	12	129
24	71	89
11	46	135
11	43	169
	99	171
	72	242

TOTAL VOL ~~70~~ 343 935  
MEAN 17.5 57.2 155.8  
RANGE 11-24 12-99 89-242  
NO. LIZARDS 4 6 6





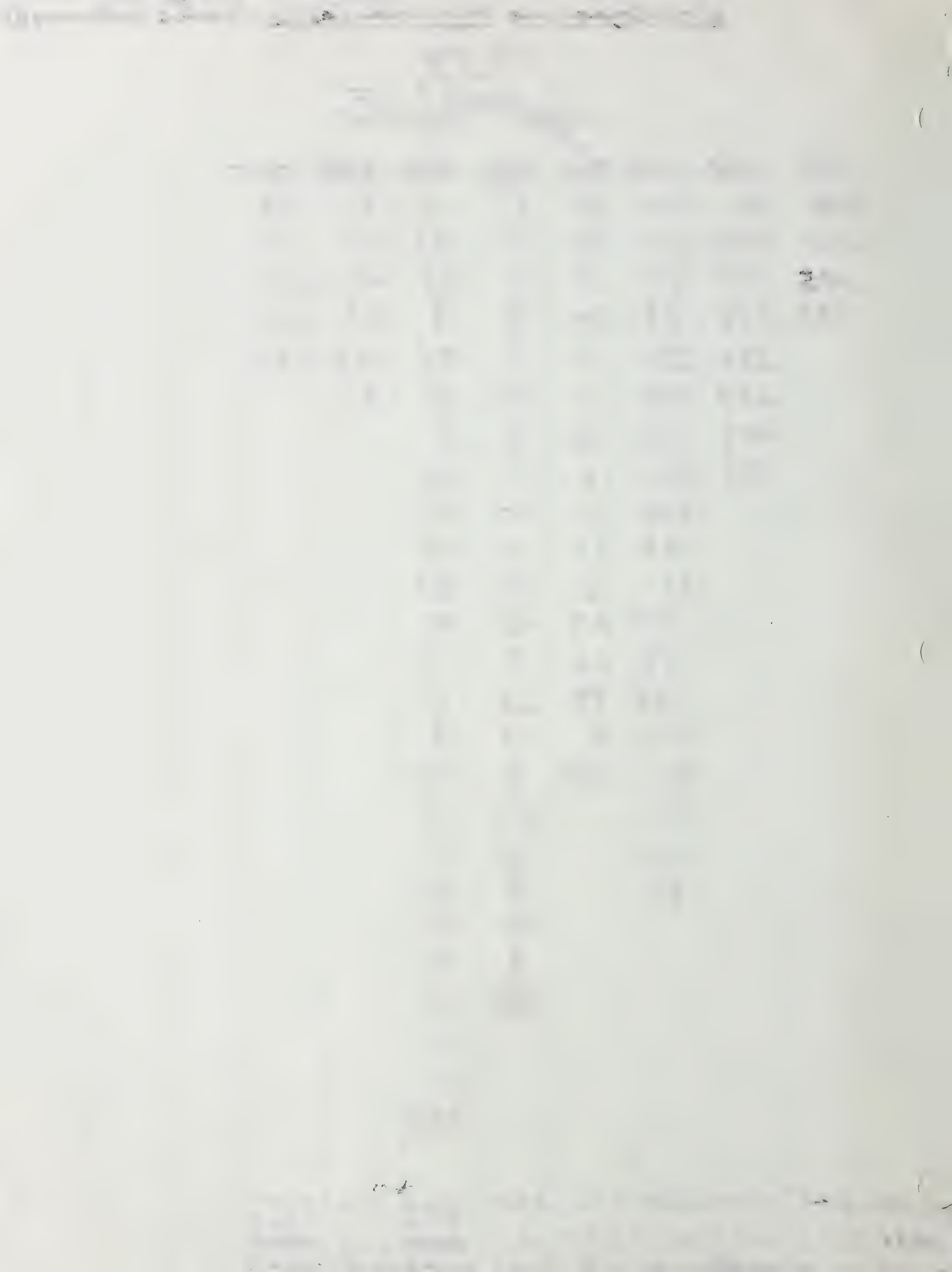
# Sceloporus occidentalis Testis Volumes (65mm SL)

1959  
Left Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
240	215	205	60	17	10	51	128
210	235	125	29	~	30	37	176
205	240	174	8	11	40	24	205
190	278	179	24	10	8	27	212
	288	281	11	9	36	154	153
	259	308	11	20	8	51	
	244	261	32	16	8		
	195	351	16	11	43		
		308	19	24	50		
		179	21	12	108		
		301	16	34	89		
		137	23	45	4		
		158	26	7	13		
		137	98	22	11		
		217	5	19	8		
		42	47	8	13		
		79		27	15		
		113		15	5		
		84		8	24		
				18	52		
				8	96		
				39	40		
					21		
					24		
					248		

TOTAL VOL. 845 1954 3639 446 380 1004 344 874  
 MEAN 211.3 244.3 191.5 27.9 18.1 40.2 57.3 174.8  
 RANGE 190-240 195-288 84-351 5-98 7-45 4-248 24-151 128-212  
 NO. LIZARDS 4 8 19 16 21 25 6 5





# Sceloporus occidentalis Testis Volumes (65+ mm SVL)

1959  
Right Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT
193	179	205	60	20	13	40	133
205	241	147	24	38	20	30	205
157	212	200	7	8	30	24	339
190	284	179	35	8	11	22	137
	220	252	10	6	28	125	212
	280	348	11	20	8	42	
	266	229	20	10	~		
	168	299	17	8	50		
		356	19	18	33		
		205	18	11	91		
		339	12	16	59		
		141	20	30	5		
		233	20	5	16		
		158	85	21	13		
		182	6	22	10		
		42	30	7	20		
		107		22	13		
		145		6	4		
		150		8	20		
				18	55		
				7	94		
				28	41		
					18		
					19		
					254		

TOTAL VOL 745 1850 3917 394 337 925 283 1026

MEAN 186.3 231.3 206.2 24.6 15.3 38.5 47.2 205.2

RANGE 157-205 168-284 42-356 6-85 5-38 4-254 22-125 133-339

NO. LIZARDS 4 8 19 16 22 24 6 5



Sceloporus occidentalis Testis Volumes (65<sup>+</sup> mm SVL)

1960  
Left Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV
449	379	171	—	29	—	93	—	105
281	469	379		41				402
339	379			6				554
	286							433
	508							
	480							
	512							
	620							
	471							
	552							
	258							
	562							
	633							
	379							
	288							
	288							
	398							
	452							
	347							
	363							

TOTAL VOL.	1069	8624	550	0	76	0	93	0	1494
MEAN	356.3	431.2	275.0	0	25.3	0	93	0	373.5
RANGE	281-449	258-633	171-379	0	6-41	0	—	0	105-554
NO. LIZARDS	3	20	2	0	3	0	1	0	4

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Sceloporus occidentalis Testis Volumes (65 mm SV)

1960

Right Testis

MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV
314	258	128	-	27	-	93	-	94
263	354	301		50				368
280	363			5				582
	294							341
	508							
	413							
	535							
	466							
	402							
	513							
	244							
	445							
	552							
	292							
	312							
	232							
	328							
	361							
	301							
	324							

TOTAL VOL.	857	7497	429	0	82	0	93	0	1385
MEAN	285.7	374.9	<del>214.5</del>	0	27.3	0	93	0	346.3
RANGE	263-314	232-552	128-301	0	5-50	0	-	0	94-582
NO. LIZARDS	3	20	2	0	3	0	1	0	4



Sceloporus occidentalis Testis Volumes (65+mm S-V)

1961  
~~Left~~ Testis

JAN	FEB	MAR	MAR	APR	MAY	JUN	JUL	AUG	SEPT
113	344	158	383	198	141	9	—	—	53
	356	522	222	246	21	10			
	237	312	149	314	252	27			
	361	179	105	240	316	78			
	323	302		17	161				
	344	193		259	205				
	174	179		272	130				
	424	235		193	348				
	263	328		302	462				
	193	369		145	328				
	314	417		153	284				
	330	379		159	246				
	379	354		150	246				
	448	235		184	254				
	246	184			228				
	321	168			248				
		235			258				
		337			246				
		258			137				
		174			49				
		228							

TOTAL VOL	113	5057	295	9302	2832	4560	124	0	0	53
MEAN	113	316.1	139	273.6	202.3	228.0	31.0	0	0	53
RANGE	—	174-448	149	105-522	17-314	21-462	9-78	0	0	—
NO. LIZARDS	1	16	457	34	14	20	4	0	0	1
			229							
			361							
			379							
			379							
			309							

Year	Month	Day	Time	Temp	Wind	Humidity	Pressure
1917	Jan	1	10	44	SE	88	30.0
		2	10	44	SE	88	30.0
		3	10	44	SE	88	30.0
		4	10	44	SE	88	30.0
		5	10	44	SE	88	30.0
		6	10	44	SE	88	30.0
		7	10	44	SE	88	30.0
		8	10	44	SE	88	30.0
		9	10	44	SE	88	30.0
		10	10	44	SE	88	30.0
		11	10	44	SE	88	30.0
		12	10	44	SE	88	30.0
		13	10	44	SE	88	30.0
		14	10	44	SE	88	30.0
		15	10	44	SE	88	30.0
		16	10	44	SE	88	30.0
		17	10	44	SE	88	30.0
		18	10	44	SE	88	30.0
		19	10	44	SE	88	30.0
		20	10	44	SE	88	30.0
		21	10	44	SE	88	30.0
		22	10	44	SE	88	30.0
		23	10	44	SE	88	30.0
		24	10	44	SE	88	30.0
		25	10	44	SE	88	30.0
		26	10	44	SE	88	30.0
		27	10	44	SE	88	30.0
		28	10	44	SE	88	30.0
		29	10	44	SE	88	30.0
		30	10	44	SE	88	30.0
		31	10	44	SE	88	30.0

Year	Month	Day	Time	Temp	Wind	Humidity	Pressure
1917	Jan	1	10	44	SE	88	30.0
		2	10	44	SE	88	30.0
		3	10	44	SE	88	30.0
		4	10	44	SE	88	30.0
		5	10	44	SE	88	30.0
		6	10	44	SE	88	30.0
		7	10	44	SE	88	30.0
		8	10	44	SE	88	30.0
		9	10	44	SE	88	30.0
		10	10	44	SE	88	30.0
		11	10	44	SE	88	30.0
		12	10	44	SE	88	30.0
		13	10	44	SE	88	30.0
		14	10	44	SE	88	30.0
		15	10	44	SE	88	30.0
		16	10	44	SE	88	30.0
		17	10	44	SE	88	30.0
		18	10	44	SE	88	30.0
		19	10	44	SE	88	30.0
		20	10	44	SE	88	30.0
		21	10	44	SE	88	30.0
		22	10	44	SE	88	30.0
		23	10	44	SE	88	30.0
		24	10	44	SE	88	30.0
		25	10	44	SE	88	30.0
		26	10	44	SE	88	30.0
		27	10	44	SE	88	30.0
		28	10	44	SE	88	30.0
		29	10	44	SE	88	30.0
		30	10	44	SE	88	30.0
		31	10	44	SE	88	30.0



Sceloporus occidentalis Testis Volumes (65<sup>+</sup> mm SV)

1961  
Right Testis

JAN	FEB	MAR	MAR	APR	MAY	JUN	JUL	AUG	SEPT
124	344	150	410	198	149	12	7	—	35
	332	406	280	274	21	7			
	217	294	102	301	191	36			
	361	193	128	308	280	57			
	220	191		11	200				
	351	205		274	240				
	105	184		286	111				
	323	229		205	206				
	344	265		233	324				
	141	358		129	278				
	244	630		161	196				
	283	433		146	261				
	249	398		167	193				
	566	188		153	273				
	263	229			217				
	269	179			217				
		240			316				
		361			206				
		244			133				
		164			42				
		222							

TOTAL VOL	124	4612	288	8855	2846	4054	112	0	0	35
MEAN	124	288.3	129	260.4	203.3	202.7	28.0	0	0	35
RANGE	—	105-351	146	102-410	11-308	21-324	7-57	0	0	—
NO. LIZARDS	1	16	369	34	14	<del>20</del>	4	0	0	1
			149							
			193							
			278							
			288							
			332							





Sceloporus occidentalis Testis Volumes (65<sup>T</sup>mm S-V)

1962

MAR APR Left Testis MAY JUN JUL  
~~MAR~~ ~~APR~~ ~~MAY~~ ~~JUN~~ ~~JUL~~

187	286	286	246	294	41
363	372	280	116	27	
215	273	179	81		
341	369	217	44		
263	316	267	46		
472	316	217	145		
330	288	105	104		
286	492		120		
246	398		78		
	348		59		
	301		16		
	415		128		
	246		195		
	423		158		
	235		145		
	241		108		
	379		128		
	386		120		
	305		179		
	308		57		
	364		102		
	235		81		
	205		154		
	164				

TOTAL VOL	187	2802	179	10386	2658	68
MEAN	187	311.3	206	280.7	115.6	34.0
RANGE	-	215-472	159	179-280	16-294	27-41
NO. LIZARDS	1	9	190	37	23	2
		205				
		171				



Sceloporus occidentalis Testis Volumes (65<sup>+</sup> mm S-V)

1962  
Right Testis

MAR APR MAY MAY JUN JUL

230 371 316 292 254 26

415 316 310 135 26

288 208 203 69

386 321 229 55

256 288 215 40

423 286 228 122

316 301 193 143

348 388 102

235 331 75

286 53

356 13

457 129

356 212

340 143

330 211

222 94

386 111

263 130

292 193

240 50

296 78

230 90

233 111

200

TOTAL VOL 230 3038 193 10137 2613 52

MEAN 230 337.6 205 274.0 113.6 26.0

RANGE — 235-423 158 158-457 13-254 —

NO. LIZARDS 1 9 163 37 23 2

258

248





Sceloporus occidentalis - Testis volumes (65<sup>+</sup>mm, S-V)  
1963

Left Testis

Apr	May	Jun	Jul	Aug
157	344	179	20	63
182	296		85	
263	348		13	
321	<del>179</del>		24	
434	<del>20</del>			
302	<del>85</del>			

$\Sigma X$  1659 988 179 142 63

$N$  6 3 1 4 1

$\bar{X}$  276.5 329.3 179 35.5 63

Range — —

Right Testis

Apr	May	Jun	Jul	Aug
137	371	161	24	55
200	235		73	
305	280		13	
402			35	
406				
309				

$\Sigma X$  1759 886 161 145 55

$N$  6 3 1 4 1

$\bar{X}$  293.2 295.3 161 36.2 55

Range — —



Sceloporus occidentalis Adults (65+ mm S-V)

(15)  
Left testis anterior

(16)  
Right testis anterior  
|||||  
|||||

(17)  
Testes even



Sceloporus occidentalis Immature (<65mm S-U)

⑮  
Left testis anterior

⑯  
Right testis anterior

⑰  
Testes even

|||





Testis Volumes, *Sceloporus occidentalis* Adult (65+ mm S-V)

Left testis larger

|||||

|||||

|||||

Right testis larger

|||||

|||||

Testes same size

|||||



Testis Volumes, *Sceloporus occidentalis* Immature (<65mm S-IV)

Left testis larger

|||||

Right testis larger

|||||

Testes same size

|||||





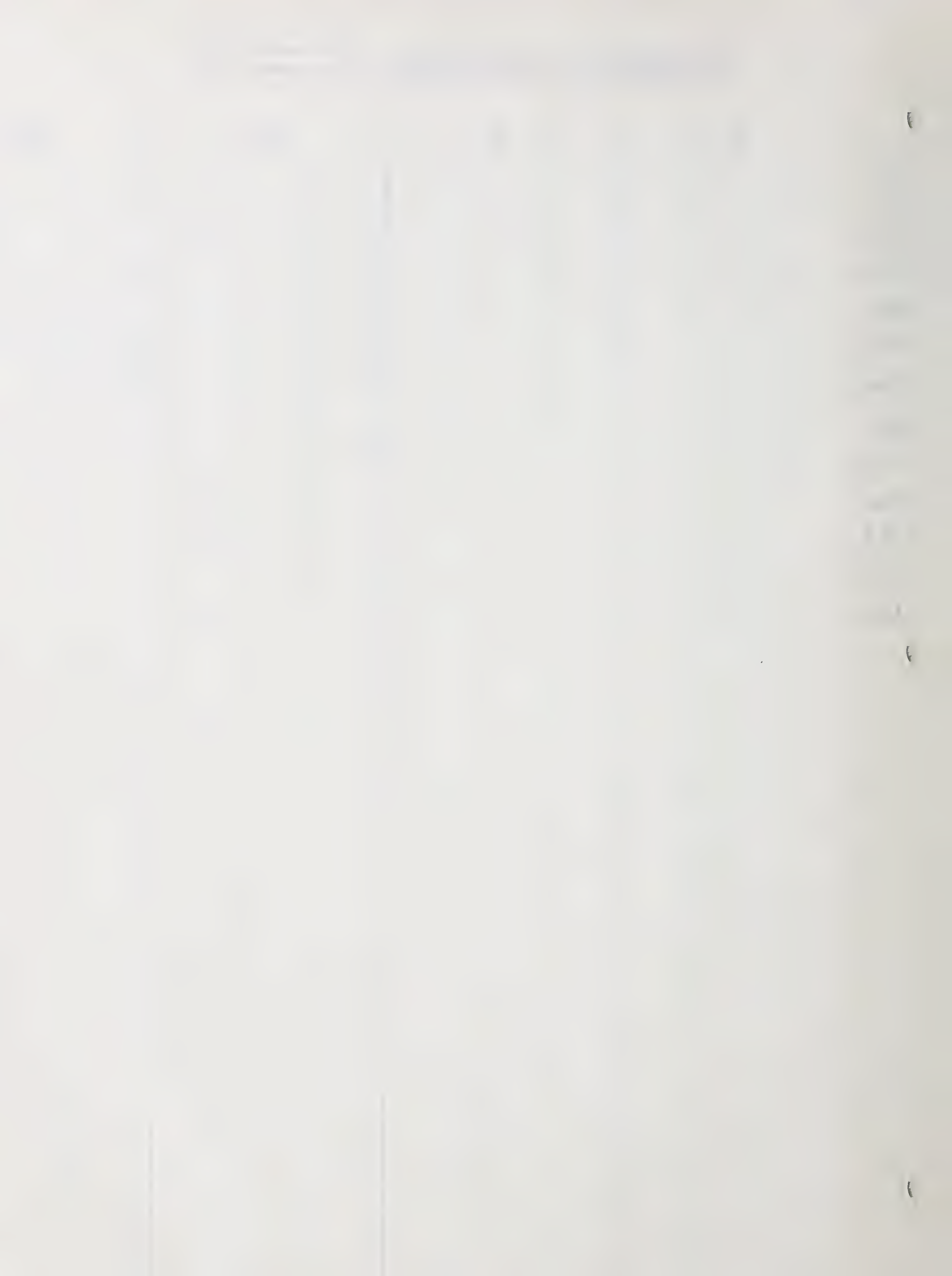
Sceloporus occidentalis Adult ♂ (65+ mm S-V)

B	B1	B2	B3
Jan			
Feb			
Mar			
Apr			
May			
Jun			
Jul			
Aug			
Sep			
Oct			
Nov			
Dec			



Sceloporus occidentalis Immature

B	B1	B2	B3
Jan			
Feb			
Mar			
Apr			
May		I	
Jun		II	I
Jul		III	
Aug			
Sep			
Oct			
Nov			
Dec			



Sceloporus occidentalis Adult (60+ mm S-V)

(19) LEFT OVARY ANTERIOR	(18) RIGHT OVARY ANTERIOR	(20) OVARIES EVEN





Sceloporus occidentalis  
EGGS IN OVIDUCT.

LEFT

RIGHT

NO. of EGGS	0	1	2	3	4	5	6	7	8	9	10		0	1	2	3	4	5	6	7	8	9	10
NO. of TAG																							
76						✓												✓					
82					✓												✓						
86					✓												✓						
312							✓											✓					
453				✓																✓			
456						✓												✓					
467					✓													✓					
470								✓												✓			
472						✓												✓					
473								✓											✓				
474						✓													✓				
476							✓												✓				
479					✓													✓					
480							✓												✓				
481					✓												✓						
482						✓												✓					
490					✓													✓					
512					✓															✓			
517						✓												✓					
549					✓														✓				
556					✓													✓					
557						✓									✓				✓				
558						✓												✓					
566					✓														✓				
570							✓												✓				
577					✓											✓							
578				✓													✓						
580					✓												✓						
584						✓												✓					



Sceloporus occidentalis

EGGS IN OVIDUCT

LEFT

RIGHT

NO. of EGGS	0	1	2	3	4	5	6	7	8	9	10		0	1	2	3	4	5	6	7	8	9	10
NO. of TAG																							
589						✓											✓						
595			✓														✓						
621			✓													✓							
623					✓												✓						
629		✓														✓							





Sceloporus occidentalis  
SIZE OF EGGS IN OVIDUCT

LIZARD NO	LEFT	RIGHT
	SIZE IN mm.	SIZE IN mm
76	12.5 x 7.5 13.8 x 7.8 13.7 x 7.5 14.0 x 8.6 13.5 x 7.5	13.7 x 7.6 13.3 x 7.4 13.8 x 8.4 13.7 x 8.4 13.1 x 8.0
82	13.4 x 6.5 13.7 x 7.2 12.8 x 7.7 13.5 x 7.7	12.6 x 7.4 13.4 x 8.1 13.2 x 7.2 13.1 x 7.8
86	13.2 x 8.0 13.5 x 8.1 13.4 x 8.0 13.5 x 7.8	14.9 x 8.3 13.8 x 8.6 14.7 x 8.0 14.3 x 8.1
312	12.3 x 8.1 12.8 x 8.4 12.5 x 7.8 11.6 x 8.1 12.0 x 8.1 13.1 x 8.4	11.9 x 8.3 13.1 x 8.0 12.2 x 8.4 11.9 x 8.0 11.6 x 8.6
453	12.5 x 6.8 12.2 x 6.8 12.0 x 5.7	10.8 x 7.5 11.4 x 7.5 12.0 x 8.6 10.2 x 6.3 12.0 x 6.8 <u>11.7 x 7.7</u> <u>10.8 x 6.5</u>
456	11.7 x 8.3 12.2 x 7.2 10.8 x 7.5 10.2 x 7.8 10.8 x 8.1	11.7 x 8.0 12.2 x 7.2 10.8 x 7.7 11.1 x 7.7 11.3 x 7.4
467	13.6 x 7.8 14.7 x 7.7 14.1 x 8.2 14.0 x 7.3	13.0 x 7.3 13.3 x 7.5 13.9 x 7.3 13.4 x 7.1 13.7 x 7.7
470	12.6 x 7.8 12.0 x 7.4 12.0 x 8.1 13.1 x 6.6 12.3 x 7.5 <u>11.8 x 6.7</u> 12.0 x 7.0	12.6 x 7.3 12.0 x 7.9 11.4 x 6.9 11.5 x 7.4 11.7 x 6.6 <u>11.6 x 7.3</u> <u>11.9 x 7.0</u>
472	13.5 x 8.7 12.8 x 8.4 12.9 x 7.7 12.8 x 8.4 14.3 x 8.7	12.8 x 8.3 12.9 x 7.3 12.6 x 8.3 12.2 x 7.7 13.5 x 7.5
473	12.3 x 8.7 12.2 x 8.4 12.6 x 8.0 12.3 x 8.3 12.5 x 7.7 <u>12.3 x 7.8</u> 12.0 x 7.8	12.5 x 7.8 12.8 x 8.6 12.0 x 8.0 12.3 x 8.0 11.7 x 7.5 12.6 x 8.0
474	Broken x x	Broken x x x
476	9.0 x 7.5 13.5 x 8.6 13.5 x 8.6 11.7 x 7.8 13.1 x 8.6 12.9 x 8.0	12.8 x 8.1 13.2 x 8.3 12.6 x 7.5 12.5 x 8.0 12.8 x 7.5 12.0 x 8.0
479	13.8 x 7.7 14.1 x 7.8 14.3 x 7.5 13.4 x 6.5	13.1 x 7.5 13.1 x 8.0 13.5 x 7.1 12.0 x 7.8 14.0 x 7.2
480	8.3 x 8.3 9.6 x 8.6 12.5 x 8.3 12.0 x 8.3 12.6 x 8.0 11.7 x 8.1	11.9 x 8.3 11.6 x 7.5 12.3 x 8.7 10.5 x 7.4 11.3 x 8.1 11.3 x 6.8
481	12.3 x 7.5 13.5 x 8.3 13.1 x 8.0 12.0 x 7.5	13.5 x 7.1 <u>8.1 x 12.9</u> 12.5 x 11.1 13.5 x 8.4
482	12.8 x 7.1 13.7 x 8.3 13.2 x 7.7 14.7 x 8.0 14.1 x 6.3	14.3 x 7.7 13.8 x 7.5 15.0 x 8.0 13.1 x 7.8 13.5 x 8.0
490	13.5 x 7.8 13.5 x 7.4 13.1 x 6.5 14.0 x 8.0	14.9 x 6.8 15.0 x 8.7 13.5 x 7.2 12.5 x 7.7 13.8 x 8.3
512	9.8 x 8.3 11.0 x 7.7 10.8 x 8.0 10.8 x 8.1	10.5 x 8.6 11.3 x 7.5 11.0 x 7.2 11.3 x 7.4 10.5 x 6.8 <u>10.8 x 7.4</u> <u>10.4 x 6.5</u>
517	12.9 x 7.8 12.6 x 7.5 11.7 x 8.3 12.3 x 8.0 12.0 x 7.5	12.8 x 7.5 12.0 x 7.1 12.0 x 7.2 12.8 x 7.7 12.2 x 7.8 12.5 x 7.5
549	12.3 x 7.5 12.8 x 6.8 12.5 x 6.8 13.5 x 7.8	13.1 x 7.8 12.5 x 7.2 13.7 x 8.4 12.9 x 8.1 12.9 x 7.4
556	13.8 x 8.3 13.4 x 7.5 13.5 x 7.8 12.8 x 7.4	14.0 x 7.1 14.1 x 6.5 13.7 x 7.8
557	11.7 x 6.8 13.4 x 7.2 12.5 x 7.8 12.6 x 7.5 12.0 x 8.3	13.5 x 8.3 13.2 x 8.0 13.8 x 8.3 14.3 x 8.6 13.5 x 8.9
558	12.5 x 9.0 13.5 x 8.7 13.1 x 8.7 13.5 x 8.0 13.7 x 7.8	13.1 x 8.0 12.8 x 8.1 13.2 x 8.0 12.6 x 7.5 12.3 x 8.0 11.4 x 7.9
566	11.8 x 8.0 12.0 x 7.8 12.3 x 8.3 13.8 x 7.5	12.0 x 6.8 13.7 x 7.7 13.2 x 7.9 13.1 x 6.9 12.8 x 7.1 13.5 x 7.2
570	12.2 x 8.1 13.7 x 7.5 12.8 x 7.4 13.2 x 8.1 13.7 x 8.3 13.1 x 8.4	13.1 x 8.0 12.3 x 8.7 13.5 x 8.6
577	13.5 x 7.2 12.5 x 8.0 13.4 x 8.0 12.9 x 8.4	14.0 x 7.7 14.1 x 7.7 13.5 x 7.5 15.0 x 8.1
578	13.1 x 8.0 14.1 x 7.2 14.3 x 7.5	14.3 x 8.3 14.0 x 7.8 13.7 x 6.9 14.1 x 7.2
580	14.0 x 7.5 13.5 x 7.8 13.5 x 7.5 13.2 x 6.9	12.2 x 7.7 12.3 x 7.8 12.5 x 7.5 12.8 x 7.5 13.2 x 7.2
584	13.2 x 7.4 13.4 x 7.2 14.3 x 7.2 13.8 x 7.5 14.0 x 7.5	



Sceloporus occidentalis  
SIZE OF EGGS IN OVIDUCT

LEFT

RIGHT

LIZARD NO.

SIZE IN mm.

589 12.8 x 7.5 13.1 x 8.0 12.5 x 8.3 13.7 x 8.1 14.0 x 7.4  
595 13.8 x 8.1 13.1 x 6.8 12.0 x 7.2  
621 13.1 x 7.2 13.5 x 6.8 13.4 x 7.2  
623 14.4 x 8.3 14.7 x 7.5 14.1 x 8.3 14.0 x 7.5  
629 14.3 x 8.3 13.7 x 7.1

$$N = 149$$

$$\Sigma X = 1918.9 \times 1155.0$$

$$\bar{X} = 12.9 \times 7.8 \text{ mm}$$

SIZE IN mm.

13.5 x 8.0 13.5 x 8.0 13.5 x 7.2 13.5 x 7.8  
12.2 x 8.3 12.5 x 7.7 Ruptured 12.2 x 8.0  
13.8 x 6.6 13.2 x 6.6 12.6 x 6.8  
13.2 x 7.5 12.8 x 8.1 14.3 x 8.1 14.3 x 7.7  
15.3 x 8.0 14.7 x 8.4 14.0 x 7.5

$$N = 155$$

$$\Sigma X = 1982.1 \times 1196.2$$

$$\bar{X} = 12.8 \times 7.8 \text{ mm}$$

$$N = 304$$

$$\Sigma X = 3901.0 \times 2351.2$$

$$\bar{X} = 12.8 \times 7.7 \text{ mm}$$

$$\text{Range} = 8.3 \times 5.7 \text{ mm To } 15.3 \times 9.0 \text{ mm}$$

Table 1: Summary of Data	
Category	Value
Item 1	100
Item 2	200
Item 3	300
Item 4	400
Item 5	500
Item 6	600
Item 7	700
Item 8	800
Item 9	900
Item 10	1000

Table 2: Detailed Data	
Category	Value
Item 1	100
Item 2	200
Item 3	300
Item 4	400
Item 5	500
Item 6	600
Item 7	700
Item 8	800
Item 9	900
Item 10	1000



Sceloporus occidentalis

OVA WITH YOLK

LEFT OVARY

RIGHT OVARY

NUMBER OF OVA

1 1

2 1

3 11

4 ~~||||~~ ||

5 ~~||||~~ ||

6 ~~||||~~ ||

7 1

8 111

9

10

1

111

~~||||~~ ||

~~||||~~ ||

~~||||~~ ||

11

11

1





Sceloporus occidentalis

FAT BODIES

⑦

MONTH	ADULT		IMMATURE	
	♂ (65 <sup>+</sup> mm.)	♀ (60 <sup>+</sup> mm.)	♂	♀
JAN.				
FEB.				
MAR.				
APR.				
MAY				
JUN.				
JUL.				
AUG.				
SEPT.				
OCT.				
NOV.				
DEC.				



Sceloporus occidentalis Adult (60+ mm S-V)

No.	Left ovary	Right ovary
6	I	II
7	III	II
8	II	I
9	IIII	IIII
10	IIII	III
11	IIII	IIII
12	IIIIII	IIII
13	IIIIIIII	IIIIIIII
14	IIII	IIIIIIII
15	IIIIII	IIIIIIIIII
16	IIIIIIII	IIII
17	IIIIII	IIIIIIII
18	IIIIII	IIIIII
19	IIIIII	IIII
20	II	IIII
21	II	II
22	III	IIII
23	III	IIII
24	II	I
25	III	II
26	I	I
27	I	
28		II
29		I
30		
31		
32		
33		
34		
35		I
36		





Sceloporus occidentalis Immature

No.	Left ovary	Right ovary
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
3		
4		



Sceloporus occidentalis Adult ♀ (60+ mm S-V)

	B	B1	B2	B3
Jan				
Feb				
Mar 1				
Apr		≡		
May 11		≡ 1		
Jun		≡		
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				



Sceloporus occidentalis Immature ♀

B	B1	B2	B3
Jan			
Feb			
Mar 1			
Apr			
May			
Jun			
Jul			
Aug	1		
Sep			
Oct			
Nov			
Dec			





SCHEIDT'S ORCUTT

SCELOPORUS ORCUTTI

# Potential Breeders, Sceloporus orcutti ♂♂ (90+mm, S-V)

(smallest ♂ = 92 mm)

(largest ♂ = 115 ..)

Date	# ♂	No ♂	Total	% ♂
Aug '58	3	1	4	75
Sept.	0	2	2	0
Jan. '59	0	2	2	0
Feb.			0	
Mar.	0	1	1	0
Apr.	0	2	2	0
May	3	0	3	100
June	2	0	2	100
July	10	2	12	84
Aug.	7	3	10	70
Mar. '60	0	3	3	0
Apr.	2	0	2	100
Jan. '61	0	3	3	0
Feb.	0	6	6	0
Mar.	0	10	10	0
Apr.	7	5	12	58
May	5	1	6	83
June	12	0	12	100
July			0	
Aug.	1	0	1	100
Sept.	0	2	2	0
Mar. '62	0	1	1	0
Apr.	1	0	1	100
May	2	0	2	100

Totals, 1958-1961				
Month	# ♂	No ♂	Total	% ♂
Jan.	0	5	5	0
Feb.	0	6	6	0
Mar.	0	14	14	0
Apr.	9	7	16	56
May	8	1	9	89
June	14	0	14	100
July	10	2	12	84
Aug.	11	4	15	73
Sept.	0	4	4	0
			95	

Totals, 1958-1962				
Month	# ♂	No ♂	Total	% ♂
Jan.	0	5	5	0
Feb.	0	6	6	0
Mar.	0	15	15	0
Apr.	10	7	17	59
May	10	1	11	91
Jun	14	0	14	100
July	10	2	12	84
Aug	11	4	15	73
Sept.	0	4	4	0
Total			99	



(m-EP - 9 + H-0-0)  
(- 211 - 9 + 222-1)

12-1-1928-1941

Q.P	1-1-1928	1-1-1928	1-1-1928	1-1-1928
0	2	2	0	1002
0	2	2	0	1002
0	14	14	0	1002
22	16	7	9	1002
98	9	1	8	1002
1001	14	0	14	1002
48	14	0	10	1002
87	12	1	11	1002
0	4	4	0	1002
92				1002

12-1-1928-1941

Q.P	1-1-1928	1-1-1928	1-1-1928	1-1-1928
0	2	2	0	1002
0	2	2	0	1002
0	14	14	0	1002
22	16	7	9	1002
98	9	1	8	1002
1001	14	0	14	1002
48	14	0	10	1002
87	12	1	11	1002
0	4	4	0	1002
92				1002

Q.P 1-1-1928



1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
10	10	10	10
11	11	11	11
12	12	12	12





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STEEL BACKPLATE

S. E. & M. VERNON, INC.

U. S. A.



